

K.T.S.P.Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA

Rajgurunagar, Tal.Khed, Dist.Pune.410 505.

Faculty of Commerce

Work load for the Year 2017-18

Class: F.Y. B.Com

No	Subject	Div A	Div B	Div C	Div D	Div E	Div F	Total
1	Financial Accounting	4	4	4	4	4	4	24
	Financial Accounting(Practical)	2+2	2+2	2+2	2+2	2+2	2+2	24
2	Maths & Statistics	2	2	2	2	2	2	12
3	Banking & Finance(Eng)	4	-	-	-	-	-	4
	Banking & Finance(mar)	-	4	4	-	-	-	08
4	Organisation skill Dev	-	-	-	4	4	4	12
5	Business Env & Ent	-	-	-	4	4	4	12
6	Consumer Protection (Eng)	4	-	-	-	-	-	4
	Consumer Protection (Mar)	-	4	4	-	-	-	8
	Total	18	18	18	18	18	18	108

Class: S.Y. B.Com

No	Subjects	Div A	Div B	Div C	D	Total
1	Corporate Accounting	4	4	4	4	16
2	Company Law Eng/Mar	4	4	4	4	16
3	Business Management	4	4	4	4	16
4	Business Communication	4	4	4	4	16
5	Cost & Works Accounting I	4	4	-	-	8
6	Business Administration I	-	4	4	4	12
	Total	20	24	20	20	84

Class: T.Y. B.Com

No	Subjects	Div A	Div B	Div C	Total
1	Advanced Accounting	4	4	4	12
2	Business Reg. framework	4	4	4	12
3	Auditing & Taxation	4	4	4	12
4	Cost & Work A/C II & III	8	-	-	8
5	Business Admin II & III	-	8	8	16
		20	20	20	60

Total Work Load

Sr.No.	Total Work Load	Periods	Practical	Total
1	F.Y. B.Com	84	24	108
2	S.Y. B.Com	84	-	84
3	T.Y. B.Com	60	-	60
4.	F.Y.B.CA	12	-	12
	Total	240	24	264

Distribution of Work

Sr.No.	Total Work Load	Periods
1.	Dr.H.M. Jare (Vice-Principal & H.O.D)	18
2.	Prof.G.M.Dhumal	20
	Total	38

Total Work Load(GRANT 56+ NON GRANT 208) 264

Grantable Staff 38

Balance Work load 226

Teachers are required for U.G. = 11

DR.H.M. Jare
Vice Principal &H.O.D. (Commerce)

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Faculty of Commerce

Work load Distribution for the Year 2017-18

Total Workload 240 Periods+ Practical 24 = 264

Grantable Staff-

1) Prof. Dr.H.M. Jare	= 18 Periods
2) Prof.G.M.Dhumal	= 20 Periods

Total of grant Workload	= 38 <u>Periods</u>

Non-grant Workload

1. Prof. P.P.Oswal	=	20+2Practical	=	22 Periods
2. Prof.H.S.Chaudhari	=	20+2Practical	=	22 Periods
3. Prof.R.N.Katore	=	20+2Practical	=	22 Periods
4. Prof.T.B.Vehale	=	20+2Practical	=	22 Periods
5. Prof.S.P.Borhade	=	20+2Practical	=	22 Periods
6. Prof.S.S.Thorat	=	20+2Practical	=	22 Periods
7. Prof. R.R.Rode	=	20+2Practical	=	22 Periods
8. Prof.R.S.Dangat	=	20+2Practical	=	22 Periods
9. Prof. P.B.Arude	=	20+2Practical	=	22 Periods
10. Prof. P.P.Sandbhor	=	20+2Practical	=	22 Periods
11. Prof.S.A.Veer	=	02+04Practical	=	06 Periods

Total of Non-grant Workload = 226 Period

DR.H.M. Jare
Vice- Principal & H.O.D. Commerce

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- F.Y.B.COM **DIV:-A**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	Eco (AMP)	Eco (AMP)	CPBE (RRR)	CPBE (RRR)	CPBE (RRR)	A/C (GMD)
2.	8.20 TO 9.10	CPBE (RRR)	A/C (GMD)	A/C (GMD)	B/F (RSS)	B/F (RSS)	B/F (RSS)
3.	9.20 TO 10.10	MATH (VMW)	B/F (RSS)	MAR (VVK)	MATH (VMW)	MAR (VVK)	MATH (VMW)
4.	10.10 TO 11.00	A/C (GMD)	MATH (VMW)	ENG (SSD)	ENG (SSD)	Eco (AMP)	Eco (AMP)
5.	11.00 TO 11.50	ENG (SSD)	MAR (VVK)			ENG (SSD)	MAR (VVK)
6	11.50 TO 12.50	A/C PRA PPO HSC					
7	12.50 TO 1.50	A/C PRA PPO HSC					

P.P.OSWAL DR.T.G.GITE
TIME-TABLE COMMITTEE

DR.H.M.JARE
VICE-PRINCIPAL

DR.S.B.PATIL
PRINCIPAL

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TIME TABLE
DEPARTMENT OF COMMERCE
ACADEMIC YEAR 2017-18

CLASS:- F.Y.B.COM

DIV:-B

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	Eco (TGG)	Eco (TGG)	CPBE (TBV)	CPBE (TBV)	CPBE (TBV)	M/S (PPO)
2.	8.20 TO 9.10	CPBE (TBV)	A/C (HSC)	ENG (SSA)	B/F (RMD)	B/F (RMD)	B/F (RMD)
3.	9.20 TO 10.10	MAR (VVK)	B/F (RMD)	A/C (HSC)	A/C (HSC)	A/C (HSC)	MAR (VVK)
4.	10.10 TO 11.00	M/S (PPO)	MAR (VVK)	MAR (VVK)	ENG (SAA)	Eco (TGG)	Eco (TGG)
5.	11.00 TO 11.50	ENG (SAA)	M/S (PPO)		M/S (PPO)	ENG (SAA)	
6.	11.50 to 12.50		A/C PRA RNK TBV				
7	12.50 To 1.50		A/C PRA RNK TBV				

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- F.Y.B.COM **DIV:-C**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	ECO (SVD)	ECO (SVD)	BEE (PPS)	BEE (PPS)	BEE (PPS)	ENG (SSD)
2.	8.20 TO 9.10	BEE (PPS)	ENG (SSD)	MAR (VVK)	OSD (SST)	OSD (SST)	OSD (SST)
3.	9.20 TO 10.10	ENG (SSD)	OSD (SST)	A/C (PPO)	A/C (PPO)	A/C (PPO)	A/C (PPO)
4.	10.10 TO 11.00	M/S (GST)	M/S (GST)	M/S (GST)	M/S (GST)	ENG (SSD)	ECO (SVD)
5.	11.00 TO 11.50	MAR (VVK)		ECO (SVD)	MAR (VVK)	MAR (VVK)	
6.	11.50 to 12.50			A/C PRA SPB SST			
7	12.50 To 1.50			A/C PRA SPB SST			

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- F.Y.B.COM **DIV:-D**

Sr No.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20		ENG (VYR)	A/C (HSC)	A/C (HSC)	A/C (HSC)	ENG (VYR)
2.	8.20 TO 9.10	A/C (HSC)	MAR (SDS)	MAR (SDS)	OSD (SPB)	OSD (SPB)	OSD (SPB)
3.	9.20 TO 10.10	MAR (SDS)	OSD (SPB)	ENG (VYR)	M/S (SPB)	M/S (SPB)	ENG (VYR)
4.	10.10 TO 11.00	ECO (SSG)	ECO (SSG)	BEE (SST)	MAR (SDS)	ECO (SSG)	ECO (SSG)
5.	11.00 TO 11.50	BEE (SST)	BEE (SST)	M/S (SPB)	M/S (SPB)	BEE (SST)	
6.	11.50 to 12.50				A/C PRA RRR RMD		
7	12.50 To 1.50				A/C PRA RRR RMD		

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- F.Y.B.COM **DIV:-E&F**

Sr. No.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	MAR (VVK)	MAR (VVK)	CPBE (RMD)	CPBE (RMD)	CPBE (RMD)	MAR (VVK)
2.	8.20 TO 9.10	CPBE (RMD)	M/S (NSS)	M/S (NSS)	B/F (HSC)	B/F (HSC)	B/F (HSC)
3.	9.20 TO 10.10	M/S (NSS)	B/F (HSC)	A/C (PPS)	M/S (NSS)	A/C (PPS)	A/C (PPS)
4.	10.10 TO 11.00	ECO (SVD)	ECO (SVD)	ECO (SVD)	A/C (PPS)	MAR (VVK)	ENG
5.	11.00 TO 11.50	ENG	ENG	ENG		ECO (SVD)	
6.	11.50 To 12.30					A/C PRA PRA PPS SAV	
7	12.50 TO 1.50					A/C PRA PRA PPS SAV	

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TIME TABLE
DEPARTMENT OF COMMERCE
ACADEMIC YEAR 2017-18

CLASS:- F.Y.B.COM

DIV:-G&H

Sr No.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C (PPS)	A/C (PPS)	CPBE (SPB)	CPBE (SPB)	CPBE (SPB)	PHY EDU (PDL)
2.	8.20 TO 9.10	CPBE (SPB)	MAR (SVD)	A/C (PPS)	B/F (PRA)	B/F (PRA)	B/F (PRA)
3.	9.20 TO 10.10	MAR (SVD)	B/F (PRA)	MAR (SVD)	MAR (SVD)	ECO (SSG)	M/S (NSS)
4.	10.10 TO 11.00	ENG	ENG	M/S (NSS)	M/S (NSS)	M/S (NSS)	A/C (PPS)
5.	11.00 TO 11.50	ECO (SSG)		ECO (SSG)	ECO (SSG)	ENG	ENG
6.	11.50 TO 12.50						A/C PRA PRA
7	12.50 To 1.50						A/C PRA PRA

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- S.Y.B.COM **DIV:-A**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C (GMD)	ECO (RSS)	BC (HMJ)	BC (HMJ)	ECO (RSS)	
2.	8.20 TO 9.10	BC (HMJ)	BM (HMJ))	EVS	BM (HMJ)	A/C (GMD)	A/C (GMD)
3.	9.20 TO 10.10	BM (HMJ)	A/C (GMD)	BC (HMJ)	C.LAW (GMD)	CLAW (GMD)	BM (HMJ)
S4.	10.10 TO 11.00	ECO (RSS)	EVS	C.LAW (GMD)	CWA-I (HMJ)	CWA-I (HMJ)	ECO (RSS)
5.	11.00 TO 11.50	CWA-I (HMJ)	CWA-I (HMJ)			C.LAW (GMD)	CWA-I (HMJ)

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- S.Y.B.COM **DIV:-B**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20		BM (RRR)	ECO (TGG)	ECO (TGG)	ECO (TGG)	CWA-I (RMD)
2.	8.20 TO 9.10	EVS	A/C (SPB)	A/C (SPB)	BM (RRR)	BC (RNK)	BC (RNK)
3.	9.20 TO 10.10	A/C (SPB)	EVS	C.LAW (SST)	C.LAW (SST)	C.LAW (SST)	ECO (TGG)
4.	10.10 TO 11.00	BC (RNK)	C.LAW (SST)	BC (RNK)	CWA-I (RMD)	CWA-I (RMD)	A/C (SPB)
5.	11.00 TO 11.50	CWA-I (RMD)		BM (RRR)			BM (RRR)

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TIME TABLE
DEPARTMENT OF COMMERCE
ACADEMIC YEAR 2017-18

CLASS:- S.Y.B.COM

DIV:-C

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	BC (RNK)	BC (RNK)	C.LAW (SST)	ECO (SSG)	A/C (RNK)	CWA-I BA-I (HSC /RNK)
2.	8.20 TO 9.10	EVS	C.LAW (SST)	A/C (RNK)	A/C (RNK)	ECO (SSG)	EVS
3.	9.20 TO 10.10	C.LAW (SST)	BM (RRR)	ECO (SSG)	ECO (SSG)	BM (RRR)	BC (RNK)
4.	10.10 TO 11.00	BM (RRR)	BC (RNK)	BM (RRR)	CWA-I BA-I (HSC/PPO RNK)	CWA-I BA-I (HSC/PPO RNK)	C.LAW (SST)
5.	11.00 TO 11.50	CWA-I BA-I (HSC/PPO RNK)	A/C (RNK)				

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- S.Y.B.COM **DIV:-D**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C (SPB)	A/C (SPB)		EVS	EVS	CWA-I BA-I (HSC /RNK)
2.	8.20 TO 9.10	C.LAW (SAV)	BC (RRR)	ECO (SVD)	ECO (SVD)	ECO (SVD)	ECO (SVD)
3.	9.20 TO 10.10	BC (RRR)	C.LAW (SAV)	A/C (SPB)	BC (RRR)	C.LAW (SAV)	A/C (SPB)
4.	10.10 TO 11.00	BM (PPS)	BM (PPS)	C.LAW (SAV)	CWA-I BA-I (HSC/PPO RNK)	CWA-I BA-I (HSC/PPO RNK)	BC (RRR)
5.	11.00 TO 11.50	CWA-I BA-I (HSC/PPO RNK)		BM (PPS)	BM (PPS)		

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- T.Y.B.COM **DIV:-A**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	M.LAW (RRR)	A/C (HMJ)	AUDIT (GMD)	IG (RSS)	AUDIT (GMD)	
2.	8.20 TO 9.10	IG (RSS)	IG (RSS)	IG (RSS)	AUDIT (GMD)	M.LAW (RRR)	M.LAW (RRR)
3.	9.20 TO 10.10	CWA-III (GMD) BA-III (HSC/ PRA) C.A	A/C (HMJ)	AUDIT (GMD)	A/C (HMJ)	A/C (HMJ)	CWA-II (SST) BA-II (TBV/ SSA) CA
4.	10.10 TO 11.00	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A
5	11.00 TO 11.50						M.LAW (RRR)

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- T.Y.B.COM **DIV:-B**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C (RMD)	AUDIT (PPO)		AUDIT (PPO)		M.LAW (PPS)
2.	8.20 TO 9.10	AUDIT (PPO)	M.LAW (PPS)	A/C (RMD)	M.LAW (PPS)		MLAW (PPS)
3.	9.20 TO 10.10	CWA-III (GMD) BA-III (HSC/ PRA) C.A	I.E (TGG)	I.E (TGG)	I.E (TGG)	I.E (TGG)	CWA-II (SST) BA-II (TBV/ SSA) CA
4.	10.10 TO 11.00	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A
5.	11.00 TO 11.50			A/C (RMD)	AUDIT (PPO)	A/C (RMD)	

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TIME TABLE
DEPARTMENT OF COMMERCE ACADEMIC YEAR 2017-18
CLASS:- T.Y.B.COM **DIV:-C**

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	AUDIT (PPO)	M.LAW (RMD)	AUDIT (PPO)	A/C (RNK)	AUDIT (PPO)	A/C (RNK)
2.	8.20 TO 9.10	A/C (RNK)	A/C (RNK)	IE (SSG)	AUDIT (PPO)	AUDIT (PPO)	IE (SSG)
3.	9.20 TO 10.10	CWA-III (GMD) BA-III (HSC/ PRA) C.A	IE (SSG)	M.LAW (RMD)	M.LAW (RMD)	M.LAW (RMD)	CWA-II (SST) BA-II (TBV/ SSA) CA
4.	10.10 TO 11.00	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-III (GMD) BA-III (HSC/ PRA) C.A	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-II (SST) BA-II (TBV/ SSA) CA	CWA-III (GMD) BA-III (HSC/ PRA) C.A
5.	11.00 TO 11.50					IE (SSG)	

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Dr.H.M.Jare(Total Workload-18)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20		A/C T.Y.A	BC SY A	BC SY A		
2.	8.20 TO 9.10	BC SY A	BM SY A		BM SY A		
3.	9.20 TO 10.10	BM SY A	A/C T.Y.A	BC SY A	A/C T.Y.A	A/C T.Y.A	BM SY A
4.	10.10 TO 11.00				C.W.A I S.Y.A	C.W.A I S.Y.A	
5.	11.00 TO 11.50	C.W.A I S.Y.A	C.W.A I S.Y.A		C.W.A I S.Y.A		C.W.A I S.Y.A

Prof.G.M.Dhumal(Total Workload-20)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C S.Y.A		AUDIT T.Y. A		AUDIT T.Y. A	A/C F.Y.A
2.	8.20 TO 9.10		A/C FY A	A/C F.Y. A	AUDIT T.Y. A	A/C S.Y.A	A/C S.Y.A
3.	9.20 TO 10.10	C.W.A. III T.Y.A	A/C S.Y.A	AUDIT T.Y. A	CLAW S.Y.A	C.LAW S.Y. A	
4.	10.10 TO 11.00	A/C F.Y. A	C.W.A .III T.Y.A	CLAW S.Y. A			
S5.	11.00 TO 11.50			C.W.A. III T.Y.A		C.LAW S.Y.A	C.W.A III T.Y.A

Prof.P.P.Oswal (Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	AUDIT T.Y.C	AUDIT T.Y.B	AUDIT T.Y.C	AUDIT T.Y.B	AUDIT T.Y.C	M/S F.Y.B
2.	8.20 TO 9.10	AUDIT T.Y.B			AUDIT T.Y.C	AUDIT T.Y.C	
3.	9.20 TO 10.10			A/C F.Y.C	A/C F.Y.C	A/C F.Y.C	A/C F.Y.C
4.	10.10 TO 11.00	M/S FY B			B.A.I S.Y.D	B.A.I S.Y.D	B.A.I S.Y.D
5.	11.00 TO 11.50	B.A.I S.Y.D	M/S FY B		M/S FY B		
6.	11.50. To 12.50	PRA F.Y.A	PRA F.Y.A	PRA F.Y.B	PRA F.Y.B		
7	12.50 To 1.50						

Prof.H.S.Choudhari (Total workload=20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20			A/C F.Y.D	A/C F.Y.D	A/C F.Y.D	B.A.I S.Y.B
2.	8.20 TO 9.10	A/C F.Y.D	A/C F.Y.B		B.F F.Y.E	B.F F.Y.E	B.F F.Y.E
3.	9.20 TO 10.10	B.A. III T.Y.B	B.F F.Y.E	A/C F.Y.B	A/C F.Y.B	A/C F.Y.B	
4.	10.10 TO 11.00		B.A. III T.Y.B	B.A. III T.Y.B	B.A.I S.Y.B	B.A.I S.Y.B	B.A. III T.Y.B
5.	11.00 TO 11.50	B.A.I S.Y.B					
6.	11.50. To 12.50	PRA F.Y.A					
7	12.50 To 1.50	PRA F.Y.A					

Prof.P.P.Sandbhor(workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C F.Y G&H	A/C F.Y G&H	B.E.E F.Y.C	B.E.E F.Y.C	B.E.E F.Y.C	M.LAW T.Y.B
2.	8.20 TO 9.10	B.E.E F.Y.C	M.LAW T.Y.B	A/C F.Y G&H	M.LAW T.Y.B		M.LAW T.Y.B
3.	9.20 TO 10.10			A/C F.Y E&F		A/C F.Y E&F	A/C F.Y E&F
4.	10.10 TO 11.00	B.M. S.Y.D	B.M. S.Y.D		A/C F.Y E&F		A/C F.Y G&H
5.	11.00 TO 11.50			B.M. S.Y.D	B.M. S.Y.D		
6.	11.50. To 12.50					PRA F.Y.E	
7.	12.50 To 1.50					PRA F.Y.E	

Prof.P.R.Arude(Total Workload=20+4)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20						
2.	8.20 TO 9.10				B.F F.Y G&H	B.F F.Y G&H	B.F F.Y G&H
3.	9.20 TO 10.10	BA III TY C	B.F F.Y G&H				
4.	10.10 TO 11.00		BA III TY C	BA III TY C			BA III TY C
5.	11.00 TO 11.50						
6.	11.50. To 12.50					PRA F.Y.F	PRA F.Y.G&H
7	12.50 TO1.50					PRA F.Y.F	PRA F.Y.G&H

Prof.R.M.Dangat. (Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C T.Y.B	M.LAW T.Y.C	C.P.B.E F.Y. E & F	C.P.B.E F.Y. E & F	C.P.B.E F.Y. E & F	C.W.A I S.Y.B
2.	8.20 TO 9.10	C.P.B.E F.Y. E & F		A/C TY B	B.F F.Y.B	B.F F.Y.B	B.F F.Y.B
3.	9.20 TO 10.10		B.F F.Y.B	M.LAW T.Y.C	M.LAW T.Y.C	M.LAW T.Y.C	
4.	10.10 TO 11.00				C.W.A I S.Y.B	C.W.A I S.Y.B	
5.	11.00 TO 11.50	C.W.A I S.Y.B		A/C TY B		A/C T.Y.B	
6.	11.50. To 12.50				PRA F.Y.D		
7	12.50 To 1.50				PRA F.Y.D		

Prof.R.N.Katore. (Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	B.C S.Y.C	B.C S.Y.C		A/C TY C	A/C SY C	A/C TYC
2.	8.20 TO 9.10	A/C TY C	A/C TY C	A/C SY C	A/C SY C	B.C S.Y.B	B.C S.Y.B
3.	9.20 TO 10.10						B.C S.Y.C
4.	10.10 TO 11.00	B.C S.Y.B	B.C S.Y.C	B.C S.Y.B	B.A.I S.Y.C	B.A.I S.Y.C	B.A.I S.Y.C
5.	11.00 TO 11.50	B.A.I S.Y.C	A/C SY C				
6.	11.50. To 12.50		PRA F.Y.B				
7	12.50 To 1.50		PRA F.Y.B				

Prof.R.R.Rode. (Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	M.LAW T.Y.A	B.M S.Y.B		C.P.B.E F.Y.A	C.P.B.E F.Y.A	C.P.B.E F.Y.A
2.	8.20 TO 9.10	C.P.B.E F.Y.A	B.C S.Y.D		B.M S.Y.B	M.LAW T.Y.A	M.LAW T.Y.A
3.	9.20 TO 10.10	B.C S.Y.D	B.M S.Y.C		B.C S.Y.C	B.M S.Y.C	
4.	10.10 TO 11.00	B.M S.Y.C		B.M S.Y.C			B.C S.Y. C
5.	11.00 TO 11.50			B.M S.Y.B		M.LAW T.Y.A	B.M S.Y.B
6.	11.50. To 12.50				PRA F.Y.D		
7	12.50 To 1.50				PRA F.Y.D		

Prof.S.P.Borhade(Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	A/C S.Y.D	A/C S.Y.D	C.P.B.E F.Y.G	C.P.B.E F.Y.G	C.P.B.E F.Y.G	
2.	8.20 TO 9.10	C.P.B.E F.Y.G	A/C S.Y.B	A/C S.Y.B	O.S.D F.Y.D	O.S.D F.Y.D	O.S.D F.Y.D
3.	9.20 TO 10.10	A/C S.Y.B	O.S.D F.Y.D	A/C S.Y.D	M/S FY D	M/S FY D	A/C S.Y.D
4.	10.10 TO 11.00						A/C S.Y.B
5.	11.00 TO 11.50			M/S FY D	M/S FY D		
6.	11.50. To 12.50			PRA F.Y.C			
7	12.50 To 1.50			PRA F.Y.C			

Prof.S.S.Thorat(Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20			C.LAW S.Y.C			
2.	8.20 TO 9.10		C.LAW S.Y.C		O.S.D F.Y.C	O.S.D F.Y.C	O.S.D F.Y.C
3.	9.20 TO 10.10	C.LAW S.Y.C	O.S.D F.Y.C	C.LAW S.Y.B	C.LAW S.Y.B	C.LAW S.Y.B	C.W.A. II T.Y.A
4.	10.10 TO 11.00	C.W.A. II T.Y.A	C.LAW S.Y.B	B.E.E F.Y.D	C.W.A. II T.Y.A	C.W.A. II T.Y.A	C.LAW S.Y.C
5.	11.00 TO 11.50	B.E.E F.Y.D	B.E.E F.Y.D			B.E.E F.Y.D	
6.	11.50. To 12.50			PRA F.Y.C			
7	12.50 To 1.50			PRA F.Y.C			

Prof.T.B.Vehale(Total workload-20+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20	BCA A/C		C.P.B.E F.Y.B	C.P.B.E F.Y.B	C.P.B.E F.Y.B	
2.	8.20 TO 9.10	C.P.B.E F.Y.B	BCA A/C	BCA A/C	BCA A/C	BCA PRA	B.A.II T.Y.B
3.	9.20 TO 10.10	BCA PRA	BCA PRA	BCA PRA	BCA PRA	BCA PRA	BCA PRA
4.	10.10 TO 11.00	B.A.II T.Y.B			B.A.II T.Y.B	B.A.II T.Y.B	BCA PRA
5.	11.00 TO 11.50						
6.	11.50. To 12.50		PRA F.Y.B				
7	12.50 To 1.50		PRA F.Y.B				

Prof. S.A.Veer (Total Workload= 4+2)

SR NO.	TIME	MON	TUES	WED	THUS	FRI	SAT
1.	7.30 TO 8.20						
2.	8.20 TO 9.10						
3.	9.20 TO 10.10						BA II TY C
4.	10.10 TO 11.00	BA II TY C			BA II TY C	BA II TY C	
5.	11.00 TO 11.50						
6.	11.50. To 12.50					PRA F.Y. F	
7	12.50 To 1.50					PRA F.Y. F	

physics 2017 staff meeting

30/07/2017

1. Sub 2 - Approx distribution of Theory
Papers & time table

- 1) Prof V.D. Eastmond
- 2) AD Secretary
- 3) Prof V.D. Eastmond
- 4) Kate N/A
- 5) Torquar P.D.
- 6) Sue N/A
- 7) Hana N/A
- 8) Cheryl S/A

10-12
2017
18/08
18/08
18/08
18/08
18/08
18/08
18/08

Agenda

- 1. Distribution of Theory Papers
- 2. Preparation of time tables
- 3. Project distribution
- 4. About short term course

Agenda for meeting & minutes

2017/18

minutes:

- (1) The introduction of committee was done
- (2) The title note was prepared
- (3) The discussion about the item was done


Chairman
Department of Education
Haryana

दि. ३० जून २०१८

(मा. प्राचार्यांचे कार्यालय)

आज दि. ३० जून २०१८, शनिवार रोजी

मा. प्राचार्यांच्या अध्यक्षतेखाली इतिहास विभागाची सभा आयली. ह्या सभेबाबत प्रमाणे उपस्थिती होती.

(१) मा. प्राचार्यां डॉ. एस. बी. चौधरी

(२) वि. ज. लोडेवाडीस


(३) जी. बी. चौधरी

पुणे
३०/६/१८
सहस्रपाठक

संक्षेपित नोंदी

- (१) मा. प्राचार्यांनी प्रथमतः इतिहास विभाग सुरु झाल्याबद्दल अभिनंदन करून विभागात नव्याने रुजू झालेल्या डा. चौधरी यांचे स्वागत अभिनंदन केले.
- (२) मा. प्राचार्यांनी इतिहास विभागाच्या एकूण कार्यभार ३२ असून त्यापैकी किशोर लोडेवाडीस यांनी १८ तासिकांचा कार्यभार घेतला. ह्यात प्रथम वर्ष कला अ व ब कला ८८ द्वितीय वर्ष कला सामान्य स्तर व विशेष स्तर (८२ व ८३) ची ८८ व तृतीय वर्ष कला सामान्य स्तरचा ८२ सभा स्कूल ३८ तासिकांचा कार्यभार होण्यास रांगितले.


विभाग संपूर्ण इतिहास विभाग
पुणे ३० जून २०१८


PRINCIPAL
Pune
30/6/18

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya,

Rajgurunagar Tal.-Khed Dist.-Pune-410505

Department of Computer Science

Syllabus Completion Report

Academic Year -2017-18(Sem-II)

Sr.No.	Class	Subject Name	Teacher Name	Page No.
1	F.Y.B.Sc.(CS)	Problem solving using 'C'	Prof.P.Y.Jadhav	2
2	F.Y.B.Sc.(CS)	File Organization & Database Management System	Prof. A.S.Tanpure	4
3	F.Y.B.Sc.(CS)	Principles of analog Electronics	Prof.S.R.Gadge	5
4	F.Y.B.Sc.(CS)	Principles of digital Electronics	Prof. A.P.Kulkarni	6
5	S.Y.B.Sc.(CS)	Object Oriented Concepts and Programming in C++	Prof.M.S.Salunke	7
6	S.Y.B.Sc.(CS)	Software Enggineering	Prof. Y.D.Shinde	10
7	S.Y.B.Sc.(CS)	8051 μ c Architecture Interfacing & Prog.	Prof. A.P.Kulkarni	13
8	S.Y.B.Sc.(CS)	Communication Principles	Prof. S.R.Gadge	15
9	T.Y.B.Sc.(CS)	Operating Systems	Prof. Y.D.Shinde	17
10	T.Y.B.Sc.(CS)	Compiler Construction	Prof.P.Y.Jadhav	20
11	T.Y.B.Sc.(CS)	Computer Networks-II	Prof. P.Y.Jadhav	23
12	T.Y.B.Sc.(CS)	Internet Programming-II	Prof. M.S.Salunke	27
13	T.Y.B.Sc.(CS)	Programming in Java-II	Prof. A.S.Tanpure	29
14	T.Y.B.Sc.(CS)	Computer Graphics	Prof.M.S.Salunke	31

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Problem Solving Using 'C'

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	Chapter 8 Arrays 8.1 Array declaration, initialization R6 8.2 Types – one, two and multidimensional .	7	7
2	DECEMBER	8.3 Passing arrays to functions Chapter 9 Pointers 9.1 Pointer declaration, initialization 9.2 Dereferencing pointers 9.3 Pointer arithmetic 9.4 Pointer to pointer 9.5 Arrays and pointers 9.6 Functions and pointers – passing pointers to functions, function returning pointers 9.7 Dynamic memory allocation Chapter 10 Strings 10.1 Declaration and initialization, format specifiers 10.2 Standard library functions 10.3 Strings and pointers	6 6	6 7
3	JANUARY	10.4 Array of strings 10.5 Command Line Arguments Chapter 11 Structures and Unions 11.1 Creating structures R6(Ch 10) 11.2 Accessing structure members (dot Operator) 11.3 Structure initialization 11.4 Array of structures 11.5 Passing structures to functions 11.6 Nested structures 11.7 Pointers and structures	6	6

		11.8 Unions 11.9 Difference between structures and unions Chapter 12 File Handling 12.1 Streams 12.2 Types of Files	4	4
4	FEBRUARY	12.3 Operations on files 12.4 Random access to files Chapter 13 C Preprocessor 13.1 Format of Preprocessor directive 13.2 File Inclusion directive 13.3 Macro substitution, nested macro, argumented macro	2	2

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- File Organization and Fundamental of Databases

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	DECEMBER	6.7 Modifications to Database 6.8 DDL commands with examples 6.9 SQL mechanisms for joining relations (inner joins, outer joins and their types) 6.10 Examples on SQL (case studies)	6	8
2	JANUARY	7 Relational Database Design 7.1 Pitfalls in Relational-Database Design (undesirable properties of a RDB design like repetition, inability to represent certain information), 7.2 Functional dependencies (Basic concepts, F+, Closure of an Attribute set, Concept of a Super Key and a primary key 16 (Algorithm to derive a Primary Key for a relation)	12	12
3	FEBRUARY	7.3 Concept of Decomposition 7.4 Desirable Properties of Decomposition (Lossless join & Dependency preservation) 7.5 Concept of Normalization 7.6 Normal forms (only definitions) 1NF, 2NF, 3NF, BCNF 7.7 Examples on Normalization	3	3

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Principles of Analog Electronics

SUBJECT TEACHER- Prof. S.R.Gadge

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	DECEMBER	Unit-5:UJT,FETs and Applications Symbol, types, construction, working principle, I-V characteristics, Specifications parameters of: Uni-Junction Transistor (UJT), Junction Field Effect Transistor (JFET), Metal Oxide Semiconductor FET (MOSFET), comparison of JFET, MOSFET and BJT Applications: JFET as voltage variable resistor, MOSFET as a switch.	12	13
2	JANUARY	Unit 6: Operational Amplifier Symbol, block diagram, Opamp characteristics, basic parameters (ideal and practical) such as input and output impedance, bandwidth, differential and common mode gain, CMRR, slew rate, Concept of virtual ground, concept of feedback.	12	13
3	FEBRUARY	Information about IC741 Opamp as inverting and non-inverting amplifier, voltage follower, adder, subtractor Opamp as a comparator and Schmitt trigger	8	8

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Principles of Digital Electronics

SUBJECT TEACHER- Prof.A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
5	NOVEMBER	Unit 5: Sequential Circuits Flip flops :RS using NAND/NOR, latch, clocked RS, JK, Master slave JK, D and T. Counters: Ripple Binary counter, up down counter.	4	4
6	DECEMBER	concept of modulus counters,Decade counter, Counters for high-speed applications (Synchronous counters) withtiming diagrams. Unit 6: Operational Amplifier Symbol, block diagram, Opamp characteristics, basic parameters (ideal and practical) such as input and output impedance, bandwidth,	12	13
7	JANUARY	differential and common mode gain, CMRR, slew rate, Concept of virtual ground, concept of feedback.Shift registers: SISO, SIPO, PISO, PIPO shift registers, ring counter, universal 4-bit shift register and Applications. Unit 6: Logic Families Introduction to Integrated circuit technologies TTL, ECL, CMOS IC parameters: Logiclevels, switching speed, propagation delay.	4	4

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Object Oriented Concepts & Programming in C++

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1: 1. Object oriented concepts 1.1 Object oriented concepts 1.2 Features, advantages and Applications of OOPS	2	2
		UNIT- 2: Introduction to C++ 2.1 Data types, new operators and keywords, using namespace concept 2.2 Simple C++ Program 2.3 Introduction to Reference variables 2.4 Usage of 'this' pointer 2.5 Classes and Objects 2.6 Access specifiers 2.7 Defining Data members and Member functions 2.8 Array of objects	6	6
		UNIT- 3 : Function in C++ 3.1 Call by reference, Return by reference 3.2 Function overloading and default arguments 3.3 Inline function 3.4 Static class members 3.5 Friend Concept – Function, Class	8	8

2	DECEMBER	UNIT- 4 : Constructors and destructor 4.1 Types of constructors 4.2 Memory allocation (new and delete) 4.3 Destructor	4	4
		UNIT- 5: Operator overloading 5.1 Overloading Unary and Binary operators 5.2 Overloading using friend function 5.3 Type casting and Type conversion	4	4
		UNIT- 6: Inheritance 6.1 Types of inheritance with examples 6.2 Constructors and destructor in derived classes	8	8
3	JANUARY	UNIT- 6: Inheritance 6.3 Virtual base classes, Virtual functions and Pure virtual function 6.4 Abstract base classes	2	2
		UNIT-7. Managing Input and Output using C++ [4] 7.1 Managing console I/O 7.2 C++ stream classes 7.3 Formatted and unformatted console I/O 7.4 Usage of manipulators	6	6
		UNIT- 8: 8. Working with files 8.1 File operations – Text files, Binary files 8.2 File stream class and methods 8.3 File updation with random access 8.4 Overloading insertion and extraction operator	6	6
		UNIT-9: 9. Templates 9.1 Introduction to templates 9.2 Class templates, function templates and overloading of function templates	2	2

4	FEBRUARY	9.3 Templates with multiple parameters	2	2
		UNIT 10. Exception Handling in C++ 10.1 try, catch and throw primitives	2	2

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Software Engineering

SUBJECT TEACHER- Prof.Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	1. System Concepts (R1 : Chapter 1 & R3 : Chapter 1) 1.1 System Definition 1.2 Characteristics of a System : Organization, Subsystem, Interaction, Interdependence, Integration, Central objective, Standards, Black-box 1.3 Elements of a system : Outputs, Inputs, Processor(s), Control, Feedback, Environment, Boundaries, Interface. 1.4 Types of Systems : Physical & Abstract Systems, Open & Closed Systems, Computer-based Systems (MIS : Management Information System & DSS : Decision Support System)	5	5
		2. Software and Software Engineering (R2 : Chapter 1) 2.1 The Nature of Software 2.1.1 Defining Software 2.1.2 Software Application Domains 2.1.3 Legacy Software 2.2 Software Engineering 2.3 The Software Process 2.4 Software Engineering Practice 2.4.1 The Essence of Practice 2.4.2 General Principles 2.5 Software Myths	5	5
		3. System Development Life Cycle (SDLC) (R3 : Chapter 1) 3.1 Introduction	6	6

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- 8051 μ c Architecture Interfacing & Programming

SUBJECT TEACHER- Prof.A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1: Basics of Microcontroller & Intel 8051 architecture Introduction to microcontrollers, difference in controller and processor. Architecture of 8051, Internal block diagram, Internal RAM organization, SFRS, pin diagram of 8051, I/O ports and specifications of I/O Ports, External Memory Interface.	12	12
		UNIT-2: Programming model of 8051 Instruction classification, Instruction set, Addressing Modes: Immediate, register, direct, indirect and relative, assembler directives (org, end),	4	4
2	DECEMBER	features with example, I/O Bit & Byte programming using assembly language for LED and seven segment display (SSD) interfacing. Introduction to 8051 programming in C.	8	8
		UNIT 3: Timer / counter, serial communication, Interrupts & Programs using 'C' TMOD, TCON, SCON, SBUF, PCON Registers, Timer modes, programming for time delay using mode 1 and mode 2. Introduction to interrupt ,Interrupt types and their vector addresses, Interrupt enable register and interrupt priority register(IE,IP),	8	8

3	JANUARY	<p>Synchronous and asynchronous serial communication , Programming serial port without interrupt, Use of timer to select baud rate for serial communication.</p> <p>UNIT- 4: Interfacing, programming using 'C' & Applications of 8051</p> <p>Interfacing ADC, DAC, LCD, stepper motor. Study of advance micro controllers (ARM & PIC): Features and applications</p>	<p>4</p> <p>12</p>	<p>8</p> <p>8</p>
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Communicaton Principles

SUBJECT TEACHER- Prof.S.R.Gadge

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT-1: Introduction to Electronic Communication Importance of Communication, Elements of Communication system, Electromagnetic spectrum, types of communication, serial communication, Concepts of communication system: Signal bandwidth, channel bandwidth, data rate, baud rate, Nyquist theorem, Signal to noise ratio, and channel capacity, error handling code- Hamming code, Shannon theorem, and concept of companding.	12	12
		UNIT-2: Modulation and Demodulation Introduction to concepts of modulation and demodulation. Modulation techniques: Analog modulation: Amplitude, Phase and Frequency modulation, Circuit diagram and working of transistorized amplitude modulator and diode demodulator. Equation of amplitude modulated wave, modulation index and frequency spectrum. (Phase and frequency modulation circuits are not expected).	4	4
2	DECEMBER	Digital modulation: Pulse Amplitude Modulation (PAM), Pulse Code Modulation (PCM) Block diagram and working, delta modulation circuit, MODEM - concept of ASK, FSK, BPSK, QPSK and block diagram of MODEM using FSK.	10	10
			6	6

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Operating Systems

SUBJECT TEACHER- Prof. Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1:Introduction 1.1 Operating System Structure – Simple structure, Layered approach, Micro kernels, Modules 1.2 Virtual Machines – Introduction, Benefits 1.3 System Boot	02	02
		UNIT- 2:Process Management 2.1 Process Concept – The process, Process states, Process control block. 2.2 Process Scheduling – Scheduling queues, Schedulers, context switch 2.3 Operations on Process – Process creation with program using fork(), Process termination 2.4 Interprocess Communication – Shared memory system, Message passing systems.	04	04
		UNIT- 3: Multithreaded Programming 3.1 Overview 3.2 Multithreading Models	02	02
	DECEMBER	4. Process Scheduling 4.1 Basic Concept – CPU-I/O burst cycle, CPU scheduler, Preemptive scheduling, Dispatcher 4.2 Scheduling Criteria 4.3 Scheduling Algorithms – FCFS, SJF, Priority scheduling, Round-robin scheduling, Multiple queue scheduling, Multilevel feedback queue scheduling 4.4 Thread Scheduling	08	08

2		UNIT- 5: Process Synchronization 5.1 Background 5.2 Critical Section Problem 5.3 Semaphores: Usage, Implementation 5.4 Classic Problems of Synchronization – The bounded buffer problem, The reader writer problem, The dining philosopher problem 6. Deadlocks 6.1 System model 6.2 Deadlock Characterization – Necessary conditions, Resource allocation graph 6.3 Deadlock Prevention 6.4 Deadlock Avoidance - Safe state, Resource allocation graph algorithm, Banker's Algorithm 6.5 Deadlock Detection 6.6 Recovery from Deadlock – Process termination, Resource preemption	06	06
3	JANUARY	UNIT- 7:Memory Management 7.1. Background – Basic hardware, Address binding, Logical versus physical address space, Dynamic loading, Dynamic linking and shared libraries 7.2 Swapping 7.3 Contiguous Memory Allocation – Memory mapping and protection, Memory allocation, Fragmentation 7.4 Paging – Basic Method, Hardware support, Protection, Shared Pages 7.5 Segmentation – Basic concept, Hardware 7.6 Virtual Memory Management – Background, Demand paging, Performance of demand paging, Page replacement – FIFO, OPT, LRU, Second chance page replacement	02	02
			09	10

		UNIT- 8:File System 8.1 File concept 8.2 Access Methods – Sequential, Direct, Other access methods 8.3 Directory and Disk Structure – Storage structure, Directory overview, Single level directory, Two level directory, Tree structure directory, Acyclic graph directory, General graph directory 8.4 Allocation Methods – Contiguous allocation, Linked allocation, Indexed allocation 8.5 Free Space Management – Bit vector, Linked list, Grouping, Counting, Space maps	07	07
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Compiler Construction

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1: Introduction 1.1 Definition of Compiler, Aspects of compilation. 1.2 The structure of Compiler. 1.3 Phases of Compiler – Lexical Analysis, Syntax Analysis, Semantic Analysis, Intermediate Code generation, code optimization, code generation. 1.4 Error Handling 1.5 Introduction to one pass & Multipass compilers, cross compiler, Bootstrapping.	05	05
		UNIT- 2: Lexical Analysis (Scanner) 2.1 Review of Finite automata as a lexical analyzer, 2.2 Applications of Regular Expressions and Finite Automata (lexical analyzer, searching using RE), Input buffering, Recognition of tokens 2.3 LEX: A Lexical analyzer generator (Simple Lex Program)	05	05
		UNIT- 3: Syntax Analysis (Parser) 3.1 Definition , Types of Parsers 3.2 Top-Down Parser – 3.2.1 Top-Down Parsing with Backtracking: Method & Problems 3.2.2 Drawbacks of Top-Down parsing with backtracking,	06	06

2	DECEMBER	<p>UNIT- 3:Syntax Analysis (Parser) 3.2.3 Elimination of Left Recursion(direct & indirect) 3.2.4 Need for Left Factoring & examples 3.3 Recursive Descent Parsing : Definition 3.3.1 Implementation of Recursive Descent Parser Using Recursive Procedures 3.4 Predictive [LL(1)]Parser(Definition, Model) 3.4.1 Implementation of Predictive Parser[LL(1)] 3.4.2 FIRST & FOLLOW 3.4.3 Construction of LL(1) Parsing Table 3.4.4 Parsing of a String using LL(1) Table 3.5 Bottom-Up Parsers 3.6 Operator Precedence Parser - Basic Concepts 3.6.1 Operator Precedence Relations form Associativity & Precedence 3.6.2 Operator Precedence Grammar 3.6.3 Algorithm for LEADING & TRAILING(with ex.) 3.6.4 Algorithm for Operator Precedence Parsing (with ex.) 3.6.5 Precedence Functions 3.7 Shift Reduce Parser 3.7.1 Reduction, Handle, Handle Pruning 3.7.2 Stack Implementation of Shift Reduce Parser (with examples) 3.8 LR Parser 3.8.1 Model 3.8.2 Types [SLR(1), Canonical LR, LALR] Method & examples. 3.9 YACC (from Book 3) –program sections, simple YACC program for expression evaluation</p> <p>UNIT- 4:Syntax Directed Definition 4.1 Syntax Directed Definitions(SDD) 4.1.1 Inherited & Synthesized Attributes 4.1.2 Evaluating an SDD at the nodes of a Parse Tree, Example 4.2 Evaluation Orders for SDD's</p>	<p>14</p> <p>02</p> <p>06</p>	<p>15</p> <p>02</p> <p>06</p>
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Computer Networks-II

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1:Wired LANs 1.1 IEEE Standards Data Link Layer, Physical Layer 1.2 Standard Ethernet MAC Sublayer – Frame Format, Frame Length, Addressing, Access Method 1.3 Physical Layer – Encoding and Decoding, 10Base5, 10Base2, 10Base-T, 10Base-F, 1.4 Changes In The Standard – Bridged Ethernet, Switched Ethernet, Full Duplex Ethernet 1.5 Fast Ethernet – Goals, MAC Sublayer,Topology, Implementation 1.6 Gigabit Ethernet – goals, MAC Sublayer, Topology, Implementation 1.7 Ten-Gigabit Ethernet – goals, MAC Sublayer, Physical Layer 1.8 Backbone Networks Bus Backbone, Star Backbone, Connecting Remote LANs 1.9 Virtual LANs Membership, Configuration, Communication between Switches, IEEE standards Advantages	09	10
		UNIT- 1:Wireless LAN 2.1 IEEE 802.11 Architecture – Basic Service Set, Extended Service Set,	02	02
			05	05

		<p>Station Types</p> <p>2.2 Bluetooth Architecture – Piconet, scatternet</p> <p>UNIT- 3:The Network Layer</p> <p>3.1 Design Issues Store-and-forward packet switching, Services Provided to the Transport Layer, Implementation of Connectionless Service, Implementation of Connection Oriented Service, Comparison of Virtual Circuit and Datagram subnets</p> <p>3.2 Logical Addressing IPV4 Addresses – Address Space, Notations, Classful Addressing, Subnetting, Supernetting, Classless Addressing, Network Address Translation(NAT), (Enough problems should be covered on Addressing),</p> <p>3.3 IPV4 Protocol Datagram Format, Fragmentation, Checksum, Options</p>		
2	DECEMBER	<p>UNIT- 3:The Network Layer</p> <p>3.4 Routing Properties of routing algorithm, Comparison of Adaptive and Non- Adaptive Routing Algorithms</p> <p>3.5 Congestion Control – Definition, Factors of Congestion, Difference between congestion control and flow control, General Principles of Congestion Control, Congestion Prevention Policies</p> <p>3.6 Network Layer Devices –Routers</p> <p>UNIT- 4: Address Mapping</p> <p>4.1 Protocol(ARP)-Cache Memory, Packet Format, Encapsulation, Operation, Four Different Cases, Proxy ARP, RARP , BOOTP, DHCP – Static Address Allocation, Dynamic Address Allocation, Manual and automatic Configuration</p> <p>5. The Transport Layer</p> <p>5.1 Process-to-Process Delivery</p>	<p>05</p> <p>04</p> <p>06</p>	<p>05</p> <p>04</p> <p>07</p>

		<p>Client Server Paradigm, Multiplexing and De-multiplexing, Connectionless Vs Connection-Oriented Service, Reliable Vs Unreliable</p> <p>5.2 User Datagram Protocol(UDP) Datagram Format, Checksum, UDP operations, Use of UDP</p> <p>5.3 Transmission Control Protocol (TCP) TCP Services – Process to-Process Communication, Stream Delivery Service, sending and Receiving Buffers, Segments, Full – Duplex Communication, Connection oriented service, Reliable service</p> <p>5.4 TCP Features –Numbering System, Byte Number, Sequence Number, Acknowledgement Number, Flow Control, Error Control, Congestion Control</p> <p>5.5 TCP Segment – Format</p> <p>UNIT- 6: The Application Layer</p> <p>6.1 Domain Name System (DNS) Name Space, Domain, Name Space, Distribution of Name Space, DNS in the Internet, Resolution</p>	01	01
3	JANUARY	<p>UNIT- 6: The Application Layer</p> <p>6.2 E-MAIL Architecture, User Agent, Message Transfer Agent-SMTP, Message Access Agent-POP3, IMAP4, Web Based Mail</p> <p>6.3 File Transfer Protocol (FTP) Communication over control connection, Communication over Data Connection, Anonymous FTP</p> <p>6.4 WWW Architecture, WEB Documents Book 2 CH27 (Pg. No 851-861)</p> <p>6.5 HTTP - HTTP Transaction, Persistent and Non persistent Connection, Proxy Server</p> <p>6.6 Devices- Gateways –Transport & Application Gateways</p> <p>UNIT- 6: Network Security</p> <p>7.1 Introduction – Security Services-</p>	<p>06</p> <p>10</p>	<p>06</p> <p>10</p>

		<p>Message-Confidentiality, Integrity, Authentication, Non repudiation.</p> <p>Entity (User)- Authentication.</p> <p>7.2 Message confidentiality – Confidentiality with Asymmetric-Key Cryptography, Confidentiality with Symmetric-Key Cryptography</p> <p>7.3 Cryptography Encryption Model, Substitution Cipher and Transposition Cipher (Problems should be covered.)</p> <p>7.4 Two Fundamental Cryptographic Principles</p> <p>7.5 Communication Security</p> <p>Firewalls</p> <p>7.6 Web Security Threats, Secure Naming,DNS Spoofing, Secure DNS, Self Certifying names</p> <p>7.7 Mobile Code Security Java Applet Security, Activex, JavaScript, Viruses</p> <p>7.8 Social Issues Privacy, Anonymous Remailers, Freedom of Speech, Stegography, Copyright.</p>		
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Internet Programming-II

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1: Web Techniques 1.1 Variables 1.2 Server information 1.3 Processing forms 1.4 Setting response headers 1.5 Maintaining state 1.6 SSL	10	11
		UNIT- 2: Handling email with php 2.1 Email background 2.2 Internet mail protocol 2.3 Structure of an email message 2.4 Sending email with php 2.5 Email attachments.	06	06
2	DECEMBER	UNIT- 2: Handling email with php 2.6 Email id validation and verification 2.7 PHP error handling.	02	02
		UNIT- 3:PHP framework 3.1 Introduction to PHP framework. 3.2 Features, Applications. 3.3 One example like JOOMLA,DRUPAL.	04	04
		4. XML 4.1 What is XML? 4.2 XML document Structure 4.3 PHP and XML 4.4 XML parser	08	09

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Programming inJava-II

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	November	UNIT- 1: Collection 1.1 Introduction to the Collection framework 1.2 List – ArrayList, LinkedList and Vector, Stack, Queue 1.3 Set - HashSet, TreeSet, and LinkedHashSet 1.4 Map – HashMap, LinkedHashMap, Hashtable and TreeMap 1.5 Interfaces such as Comparator, Iterator, ListIterator, Enumeration	06	06
		UNIT- 2: Database Programming 2.1 The design of jdbc, jdbc configuration 2.2 Types of drivers 2.3 Executing sql statements, query execution 2.4 Scrollable and updatable result sets 2.5 Metadata – DatabaseMetadata, ResultSetMetadata 2.6 Transactions – commit(), rollback(), SavePoint (Database : PostgreSQL)	10	10
2	December	UNIT- 3: Servlet 3.1 Introduction to Servlet and Hierarchy of Servlet 3.2 Life cycle of servlet 3.3 Tomcat configuration (Note: Only for Lab Demonstration) 3.4 Handling get and post request	12	12

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Computer Graphics

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	NOVEMBER	UNIT- 1: Introduction to Computer graphics 1. 1 Introduction to computer graphics & graphics systems 1.2 Components of Computer Graphics Representation, Presentation , Interaction and Transformations 1.3 Applications of Computer Graphics 1.3 Pixel/Point ,Raster v/s Vector ,RGB color model, intensity 1.4 Programming essentials – event driven programming. OpenGL library	04	04
		UNIT- 2: Input devices and Interaction tasks 2.1 Logical Interaction – Locator, valuator , pick and choice; 2.2 Physical devices used for interaction – keyboard, mouse, trackball,spaceball, tablets, light pen, joy stick, touch panel, data glove; 2.4 Keyboard , Mouse interaction in OpenGL 2.5 Graphical User Interfaces- cursors , radio buttons, scroll bars, menus, icons 2.6 Implementing GUI in open GL	04	05

K.T.S.P.Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar

Department of Economics

Academic Year 2017-18

Teaching Plan

Name of Faculty:- Prof.(Dr.)T.G.Gite

Class:- F.Y.B.Com. B

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation	20

		a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	20
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

Class:- S.Y.B.Com. (B)
Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Basic Concepts of macro Economics 1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	8
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	14
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures 4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	12
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation 5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	10

6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigoue , Fisher 7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	12
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- T.Y.B.Com. (B)

Subject:- International Economics 303 (B)

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July2017	Introduction Meaning and Scope of International Economics. 2. Importance of International Trade 3.Domestic Trade Vs International Trade 4.Role of International Trade in Economic Growth	12
2	Aug.2017	Theories of International Trade 1 Theory of absolute cost advantage 2 Theory of comparative cost advantage 3 Theory of factor endowment (Hecksher-ohlin Theory,Leontief Paradox) 4 Intra Industrial Trade	12
3	Sept.2017	Terms of Trade 1 Concept of Terms of Trade A) Gross Barter Terms of Trade B) Net Barter Terms of Trade C) Income Terms of Trade and Trade Policy D) Single Factorial Terms of Trade E) Double Factorial Terms of Trade 2 Factors affecting on Terms of Trade 3 Free Trade Policy – Meaning, Arguments for and against 4 Protection Policy – Meaning, Arguments for and against	12

4	Oct.2017	Regional and International Economic Co-operation 1 Regional Co-operation – European Union (E.U) 2 South Asian Association for Regional co-operation (SAARC) 3 Concept of Trade Blocks and Economic Integration 1 South American Preferential Trading Arrangement (SAPTA) 2 North Atlantic free Trade Agreement (NAFTA) 4 BRICS – Introduction & Functions	12
5	Dec.2017	Balance of Payment 5.1 Concept of Balance of Trade and Balance of Payments 5.2 Balance of Payment on current Account and Capital Account 5.3 Measures to correct disequilibrium of Balance of Payment 5.4 Causes of disequilibrium of Balance of Payment 5.5 Convertibility of Rupee on Current and Capital Account.	12
6	Jan.2017	Foreign Exchange Rate 6.1 Meaning of Foreign exchange rate 6.2 Fixed v/s flexible exchange rate 6.3 Theories of Exchange Rate 6.3.1 Purchasing Power Parity Theory 6.3.2 Balance of Payments Theory	12
7	Feb.2018	Foreign Exchange Market 7.1 Structure of foreign exchange market 7.2 Management of Foreign Exchange -inflow and outflow of foreign capital. 7.3 Euro Dollar Market – Nature and Scope 7.4 Advantages & Disadvantages of Foreign Exchange Market.	12
8	March 2018	Factor Mobility and Foreign Trade Policy 8.1 Foreign Capital – Meaning of Foreign Direct Investment and Foreign Institutional Investments 8.2 Role of Multi National Corporations (MNC's) 8.3 Motives and effects of International Labour Migration 8.4 India's Foreign Trade Policy since 1991 Features, Trends and Evaluation.	12

Class:- S.Y.B.A.

Subject:- Macro Economics S-2

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July, 2017	Introduction 1.1 Meaning, Nature, Scope, Importance and Limitation of Macroeconomics 1.2 Difference between Micro and Macro Economics	08

2	Aug, 2017	National Income 2.1 Concepts: National Income, Gross National Product, Net National Product, Per Capita Income, Disposable Income. 2.2 Importance of National Income. 2.3 Methods of National Income Measurement 2.4 Difficulties in Measurement of National Income 2.5 Circular Flow of National Income	14
3	Sept, 2017	Theory of Employment 3.1 Say's Law of Market 3.2 Classical Theory of Employment 3.3 Criticism by Keynes on Classical Theory 3.4 Keynesian Theory of Employment	12
4	Oct, 2017	Consumption and Investment 4.1 Meaning of Consumption Function 4.2 Average and Marginal Propensity to Consume 4.3 Psychological Law of Consumption 4.4 Factors influencing Consumption Function 4.5 Saving- concept & Function 4.6 Investment- Meaning & Types 4.7 Investment Multiplier- Concept and Limitations 4.8 Principle of Acceleration - Concept	14
5	Dec,2017	Value of Money 5.1 Money- Definition and Functions 5.2 Quantity Theory of Money 5.3 Cash balance approach	12
6	Jan.2018	Inflation and Deflation 6.1 Inflation - Meaning and Causes 6.2 Demand Pull and Cost Push Inflation 6.3 Effects of Inflation 6.4 Measures to control Inflation 6.5 Deflation- Meaning, Causes and Consequences	12
7	Feb.2018	Business Cycles 7.1 Meaning and Features of Business Cycle 7.2 Phases of Business Cycle 7.3 Causes and Effects of Business Cycle. 7.4 Control of Business Cycles- Monetary and Fiscal Controls	12
8	March 2018	Macroeconomic Objectives and Policies 8.1 Macroeconomic Objectives 8.2 Monetary Policy- Meaning and Definitions, Instruments, Advantages and Limitations 8.3 Fiscal Policy- Meaning and Definitions, Instruments and Advantages	12

Class:- T.Y.B.A.

Subject:- International Economics S-3

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Introduction 1.1 International economics- meaning, Scope & Importance 1.2 Inter-regional and international trade 1.3 Importance of International Trade	12
2	Aug. 2017	2.Theories of International Trade 2.1 Theory of absolute cost advantage and comparative cost advantage 2.2 Heckscher-Ohlin theory 2.3 Leontief's paradox, Rybczynski theorem, Intra-Industry Trade	12
3	Sept. 2017	3. Gains from Trade 3.1 Measurement of gains, static and dynamic gains 3.2 Terms of trade – Importance, types and determinants 3.3 Causes of unfavorable terms of trade to developing countries.	12
4	Oct. 2017	4. Balance of Payments 4.1 Balance of trade and Balance of payments- Concepts and components 4.2 Equilibrium and disequilibrium in balance of payments; causes and consequences 4.3 Measures to correct deficit in the balance of payments	12
5	Dec. 2017	5.Trade policy & Exchange Rate 5.1 Free trade policy - case for and against 5.2 Protection Policy – case for and against 5.3 Types of tariffs and quotas 5.4 Exchange rates-Fixed and flexible	12
6	Jan.2018	6. India's Foreign Trade and Policy 6.1 Growth of India's foreign trade 6.2 Changes in the composition and direction of foreign trade since 2000-2001 6.3 Foreign Trade policy 2015-2020. 6.4 India and WTO	12
7	Feb.2018	7. Export Promotion measures 7.1 Export promotion - Contribution of SEZ 7.2 Role of multinational corporations in India. 7.3 FEMA-provisions and impact 7.4 Convertibility of Indian rupee	12
8	March 2018	8. Regional and International Co-operation Nature and Functions of-	12

		8.1 South Asian Association for Regional Co-operation (SAARC) 8.2 Brazil, Russia, India, China and South Africa (BRICS) 8.3 European Economic Community (EEC)	
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Name of Faculty:- Dr.A.M.Pawar

Class:- F.Y.B.A (A)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing Economy. 1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector. 1.4 Major issues of Development in India	12
2	Aug. 2017	2. Population . 2.1 Theory of Demographic Transition. 2.2 Size and Growth of Population. 2.3 Features of Indian population 2.3.1 Sex Composition. 2.3.2 Rural Urban Distribution. 2.3.3 Age Composition. 2.3.4 Density of Population. 2.3.5 Occupational Distribution. 2.3.6 Quality of Population. 2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate. 2.5 Problems of Over Population 2.6 Measures for Population Control. 2.7 Population Policy 2005 onward	12
3	Sept. 2017	3. Poverty and Unemployment 3.1 Meaning and Concept of Poverty. 3.2 Poverty line- Need of redefining. 3.3 Measurement of Poverty. 3.4 Causes of Poverty. 3.5 Measures of eradication of Poverty. 3.6 Unemployment – Nature & Types, Causes & Measures	12
4	Oct. 2017	4. Agriculture. 4.1 Place of Agriculture in Indian economy.	12

		4.2 Agricultural Productivity – Causes of Low Productivity & Measures. 4.3 Green Revolution- Achievements & Failures. 4.4 Sources of Agricultural Finance. 4.5 Agricultural Marketing – Defects & Measures. 4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide 4.7 Special Economic Zone- Concept, Features, Problems.	
5	Dec. 2017	5. Industry. 5.1 Role of Industrialization. 5.2 Industrial Policy – 1991. 5.3 New Economic Reforms – Concept i) Liberalization ii) Privatisation, iii) Globalization . 5.4 Small and Large Scale Industry – Growth and Problems. 5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.	12
6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- F.Y.B.A (C)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing	12

		<p>Economy.</p> <p>1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector.</p> <p>1.4 Major issues of Development in India</p>	
2	Aug. 2017	<p>2. Population .</p> <p>2.1 Theory of Demographic Transition.</p> <p>2.2 Size and Growth of Population.</p> <p>2.3 Features of Indian population</p> <p>2.3.1 Sex Composition.</p> <p>2.3.2 Rural Urban Distribution.</p> <p>2.3.3 Age Composition.</p> <p>2.3.4 Density of Population.</p> <p>2.3.5 Occupational Distribution.</p> <p>2.3.6 Quality of Population.</p> <p>2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate.</p> <p>2.5 Problems of Over Population</p> <p>2.6 Measures for Population Control.</p> <p>2.7 Population Policy 2005 onward</p>	12
3	Sept. 2017	<p>3. Poverty and Unemployment</p> <p>3.1 Meaning and Concept of Poverty.</p> <p>3.2 Poverty line- Need of redefining.</p> <p>3.3 Measurement of Poverty.</p> <p>3.4 Causes of Poverty.</p> <p>3.5 Measures of eradication of Poverty.</p> <p>3.6 Unemployment – Nature & Types, Causes & Measures</p>	12
4	Oct. 2017	<p>4. Agriculture.</p> <p>4.1 Place of Agriculture in Indian economy.</p> <p>4.2 Agricultural Productivity – Causes of Low Productivity & Measures.</p> <p>4.3 Green Revolution- Achievements & Failures.</p> <p>4.4 Sources of Agricultural Finance.</p> <p>4.5 Agricultural Marketing – Defects & Measures.</p> <p>4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide</p> <p>4.7 Special Economic Zone- Concept, Features, Problems.</p>	12
5	Dec. 2017	<p>5. Industry.</p> <p>5.1 Role of Industrialization.</p> <p>5.2 Industrial Policy – 1991.</p> <p>5.3 New Economic Reforms – Concept</p> <p>i) Liberalization ii) Privatisation, iii) Globalization .</p> <p>5.4 Small and Large Scale Industry – Growth and Problems.</p> <p>5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.</p>	12

6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- S.Y.B.A (S-1)
Subject:- Micro Economics

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Introduction 1.1 Micro Economics - Definition, Scope, importance & limitations 1.2 Basic Economic Problems 1.3 Tools of Economic Analysis -Functional relationships, Schedules, Graphs & Equations.	10
2	Aug. 2017	2. Theory of Demand 2.1 Cardinal Utility Analysis- concept of utility, assumptions - Diminishing Marginal Utility. 2.2 Ordinal Utility Analysis- Assumptions – Indifference Curve, concept & properties. Consumer Equilibrium. – Income, Substitution & Price effect on equilibrium. 2.3 Demand – Law of Demand, determinants of Demand 2.4 Elasticity of Demand – Price elasticity - definition, types,	18

		Determinants- Methods of measurements – importance. Income elasticity – Types, importance, Cross elasticity – Types, importance	
3	Sept 2017	3. Theory of Production & Cost. 3.1 Production Function, 3.2 The law of Variable Proportions, 3.3 Law of returns & returns to Scale. 3.4 Internal and External Economies & Diseconomies. 3.5 Revenue concepts: Total Revenue, Average & Marginal Revenue. 3.6 Cost concepts: Fixed & Variable cost, Opportunity cost, Average & Marginal cost, Private & Social Cost, Short run and long run cost curves.	08
4	Oct. 2017	4. Supply Analysis 4.1 Supply – concept 4.2 Determinants 4.3 Law of Supply, 4.4 Elasticity of Supply.	12
5	Dec. 2017 Jan. 2018	5. Market 5.1 Meaning & classification 5.2 Perfect Competition: concept - Characteristics, price determination in the short run and long run, Equilibrium of the firm and industry. 5.3 Monopoly- Concept, Characteristics and short and long run Equilibrium. Price discrimination. 5.4 Monopolistic Competition: concept, Characteristics and short & long run Group Equilibrium, Selling cost. 5.5 Oligopoly – Concept , Characteristics 5.6 Duopoly: - Concept & Characteristics.	20
6	Jan. 2018 Feb. 2018	6. Factor Pricing. 6.1 Marginal Productivity theory of Distribution. 6.2 Rent – Concept -Ricardian Theory of Rent, Modern Theory of Rent, Quasi Rent.. 6.3 Wages – Concept, Types – Modern theory of wage and Collective Bargaining. 6.4 Interest –Concept, Loanable funds theory and Keynes’s Liquidity preference theory. 6.5 Profit – Concept, Risk and uncertainty theory and Innovation theory.	20
7	March 2018	7. Welfare Economics 7.1 Definition 7.2 Pigovian Welfare Economics	08

		7.3 Social Welfare Function...	
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Class:- T.Y.B.A (G-3)

Subject:- Economic Development & Planning

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Economic Development and Growth 1.1 Meaning of Economic Development and Growth 1.2 Indicators of Economic Growth 1.3 Indicators of Economic Development 1.4 Differences between Economic Development & Growth	12
2	Aug. 2017	2. Developing Countries 2.1 Concept- Developed, Developing Countries 2.2 Characteristics of Developing Countries 2.2.1 Economic Characteristics 2.2.2 Demographic Characteristics 2.2.3 Technological Characteristics 2.2.4 Socio - Cultural Characteristics 2.2.5 Other Characteristics	12
3	Sept. 2017	3. Constraints on Development Process 3.1 Vicious Circle of Poverty 3.2 Population Explosion 3.3 Low Productivity of Agriculture 3.4 Scarcity of Capital 3.5 Inappropriate Technology 3.6 Socio- Cultural Constraints 3.7 Political and Administrative Constraints 3.8 External Bottleneck	12
4	Oct. 2017	4. Theories of Economic Development 4.1 Classical Theories- Adam Smith, Ricardo & Malthus 4.2 Karl Mark's Theory of Economic Development 4.3 Schumpeterian Theory of Economic Development	12
5	Dec. 2017	5. Approaches to Economic Development 5.1 Big Push Theory 5.2 Balanced Growth 5.3 Imbalanced Growth	12
6	Jan. 2018	6. Foreign Capital and Development 6.1 Meaning & Role of Foreign Capital in Economic Development 6.2 Problems of Foreign Capital 6.3 Private Foreign Investment- Types & Role 6.4 Public Foreign Investment-Types 6.5 Foreign Aid- Tide and Untied	12

7	Feb. 2018	7. Macro Economic Policy 7.1 Monetary Policy- Objectives, Instruments and Limitations 7.2 Fiscal Policy- Objectives, Instruments and Limitations 7.3 Fiscal Policy in Cyclical Fluctuations	12
8	March 2018	8. Economic Planning 8.1 Meaning & Definition 8.2 Need of Planning 8.3 Objective of Economic Planning- Economic, Social and Political 8.4 Inclusive Growth Approach & 11th five year plan 8.5 National Institution for Transforming India Aayog (NITI AYOOG)	12

Class:- F.Y.B.Com. A

Subject:- Business Economics (Micro) 103

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics- Consumer Equilibrium	20

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		6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	
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Name of Faculty:- Dr. R.S.Shirasi

Class:- F.Y.B.Com.

Subject:- Banking And Finance

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July, 2017	Evolution of banking 1.1 Origin of the word 'Bank' 1.2 Meaning and definition of bank 1.3 Evolution of banking in the West 1.4 Evolution of banking in India.	06
2	Aug. 2017	Functions of Bank 2.1 Primary functions : A) Accepting deposits : Demand deposits: Current and Savings; Time deposits-Recurring and Fixed deposits B) Granting Loans and Advances- Term Loan, Short term credit, Overdraft, Cash Credit,Purchasing and Discounting of bills, 2.2 Secondary functions : A) Agency Functions- Payment and Collection of Cheques, Bills and Promissory notes, Execution of standing instructions, Acting as a Trustee, Executor. B) General Utility Functions: Safe Custody, Safe deposit vaults, Remittances of funds, Pension payments, Acting as a dealer in foreign exchange.	14
3	Oct. 2017	Procedure for opening and operating of deposit account 3.1 Procedure for Opening of Deposit Account: Know Your Customer Norms (KYC Norms), Application form, Introduction, Proof of residence, Specimen signature and Nomination: Their importance. No Frills Account 3.2 Procedure for Operating Deposit Account: Pay-in-slips, Withdrawal slips, Issue of pass book, (Current Savings or Recurring deposits), Issue of Cheque book, Issue of fixed deposit receipt, Premature encashment of fixed deposits and loan against fixed deposit. Recurring deposits: Premature encashment and loan against recurring deposit. 3.3 a) Closure of accounts b) Transfer of accounts to other branches 3.4 Types of account holders a) Individual account holders- Single or joint, Illiterate, Minor, Married woman, Pardahnashin woman, Non resident accounts	14

		b) Institutional account holders- Sole proprietorship, Partnership firm, Joint stock company, Hindu undivided family, Clubs, Associations and Societies and Trusts.	
4	Sept. 2017	Methods of Remittances 4.1 Demand drafts, bankers' Cheques, 4.2 Mail transfer, Telegraphic transfer, 4.3 Electronic Funds Transfer.	14
5	Nov. 2017	Lending principles, Credit Creation and Balance Sheet of a bank 5.1 Safety, Liquidity, Profitability, Diversification of risks Conflict between liquidity and profitability 5.2 Multiple Credit Creation: Process and Limitations 5.3 Balance sheet of a commercial bank.	16
6	Dec. 2017	Negotiable Instruments 6.1 Definition, meaning and characteristics of Promissory note, Bill of Exchange and Cheque 6.2 Types of Cheques- Bearer, Order and Crossed 6.3 Types of Crossing- General and Special.	16
7	Dec. 2017 Jan. 2018	Endorsement 7.1 Definition and meaning of endorsement 7.2 Types of endorsement- Blank, Full or Special, Restrictive, Partial, Conditional, Sans Recourse, Facultative. 7.3 Effects of endorsement.	08
8	Feb. 2018	Technology in Banking 8.1 Need and importance of technology in banking 8.2 ATM, Credit card, Debit card, Tele Banking- Net banking, SWIFT (Society for Worldwide Inter- bank Financial Telecommunication), Concept of Core Banking Solution	08

Class:- S.Y.B.Com. (A)

Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Basic Concepts of macro Economics 1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	8
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices	14

		d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures 4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	12
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation 5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	10
6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigou , Fisher 7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	12
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- T.Y.B.Com. (A)

Subject:- Indian & Global Economic Development 303 (A)

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Introduction 1.1 Basic Characteristics of the Indian Economy as an emerging economy. 1.2 Comparison of the Indian Economy with developed economies with respect to 1.2.1 National Income 1.2.2 Per-Capita Income 1.2.3 Agriculture 1.2.4 Industry 1.2.5 Service Sector	12
2	Aug. 2017	Agricultural Development in India Since Independence 2.1 Place of Agriculture in Indian Economy 2.2 Constraints in Agricultural Development 2.3 Rural Indebtedness – Causes and measures 2.4 Agricultural Marketing – Problems and measures 2.5 Price Policy – Minimum Support Price (M.S.P.)	12
3	Sept. 2017	Industrial Development in India Since 1991 3.1 Role of Industrialization in Economic development 3.2 Role of Small, Medium and Large Scale Enterprises (SMEs) – Problems & Prospects 3.3 New Industrial Policy 1991 3.4 Evaluation of Industrial Policy 1991	12
4	Oct. 2017	Infrastructure in India Since 1991 4.1 Role of Basic infrastructure in economic development of India. 4.2 Private v/s Public investment in infrastructure development 4.3 Role of Private Sector in infrastructural development 4.4 Role of Public Sector in infrastructural development	12
5	Dec. 2017	Human Resource Development 12 5.1 Role of Human Resource in Economic Development 5.2 Concept of Human Development Index (HDI) 5.3 Concept of Human Poverty Index 5.4 Concept of Gender – related development index 5.5 Gender Employment measures	12
6	Jan. 2018	Global Economic Development and Foreign Capital 6.1 Meaning and Challenges of Liberalization, Privatization & Globalization. 6.2 Meaning and Role of Foreign Capital	12

		6.3 Need for Foreign Capital 6.4 Forms of foreign capital 6.5 Advantages & Disadvantages of Foreign Capital	
7	Feb. 2018	Foreign Trade and Balance of Payment 7.1 Importance of Foreign Trade in Economic Development. 7.2 Concept of Balance of Trade and Balance of Payment 7.3 India's Balance of Payment Position since 1991 7.4 Convertibility of Indian Rupee – Current & Capital Account 7.5 Current Export – Import Policy (EXIM Policy)	12
8	March 2018	Regional & International Economic co-operation Importance, Objectives, Structure and functions of – 8.1 South Asian Association for Regional co-operation (SAARC) 8.2 International Monetary Fund (IMF) 8.3 World Bank or International Bank for Reconstruction and Development (IBRD) 8.4 World Trade Organization (WTO) 8.5 BRICS – Introduction & Functions	12

Class:- S.Y.B.A. (G-2)
Subject:- Modern Banking

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Evolution of Modern Banking 1.1 Meaning & Definition of Bank. 1.2 Banking in Europe, USA & Asia. 1.3 Evolution of Banking in India. 1.4 Structure of Indian Banking System	12
2	Aug. 2017	Functions of Commercial Banks 2.1 Primary Functions-Accepting Deposits, Granting Loans & Advances. 2.2 Secondary Functions-Agency Functions, General Utility Functions 2.3 Methods of Remittances.	12
3	Sept. 2017	Principles of Commercial Banks 3.1 Liquidity, Profitability and Safety- Meaning & Concept. 3.2 Multiple Credit Creation-Process & Limitations. 3.3 Components of Balance Sheet of Commercial Banks	12
4	Oct. 2017	Operation & Types of Accounts 4.1 Opening and operating of Deposit Account. 4.2 Closure and Transfer of Accounts 4.3 Types of Account Holders - Individual & Institutional 4.4	12

		No Frills Account, Escrow Account	
5	Dec. 2017	Negotiable Instruments 5.1 Promissory Note, Bill of Exchange and Cheque - meaning, Definition & Characteristics 5.2 Types of Cheque – Bearer, Order & Crossed 5.3 Types of Crossing- General & Special 5.4 Endorsement- Definition, Types & Effects	12
6	Jan. 2018	New Technology in Banking 6.1 E-Banking – Need and Importance 6.2 Meaning, concept and operation of – 6.2.1 Automated Teller machine- ATM 6.2.2 Credit Card 6.2.3 Debit Card 6.2.4 Tele Banking 6.2.5 Mobile Banking 6.2.6 Net Banking 6.2.7 Society for worldwide Interbank Financial Telecommunication 6.2.8 Core Banking 6.2.9 RTGS	12
7	Feb. 2018	Reserve Bank of India 7.1 Functions 7.2 Money Measures- M0, M1, M2, M3, M4 7.3 Monetary policy- Meaning & objectives 7.4 Instruments of Credit Control	12
8	March 2018	Co- operative banking in India 8.1 Structure of Co-operative banking in India 8.2 97th Constitutional Amendment in co-operative law 8.3 NABARD- objectives, Functions & working 8.4 Challenges before co-operative Banking	12

Class:- T.Y.B.A. (S-4)
Subject:- Public Finance

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1 Public Finance 1.1 The role of Government in an economy 1.2 Meaning, Nature, Scope and Importance of Public Finance 1.3 Private Finance and Public Finance 1.4 Principle of Maximum Social Advantage- Dr. Dalton	10
2	Aug. 2017	2. Public Expenditure 2.1 Meaning and Principle of Public Expenditure	14

		2.2 Classification of Public Expenditure 2.3 Trends of Public Expenditure in India. 2.4 Causes of increase in Public Expenditure 2.5 Effects of Public Expenditure	
3	Sept. 2017	3. Public Revenue 3.1 Sources of Public Revenue 3.2 Meaning and Objectives of Taxation 3.3 Principles of taxation- Benefit approach, Ability to pay 3.4 Concepts- Impact of Tax, incidence of Tax, Shifting of Tax and Taxable Capacity 3.5 Indian Tax Structure- Direct and Indirect tax, Progressive, proportional and Regressive	12
4	Oct. 2017	4. Public Debt 4.1 Meaning and types of Public Debt 4.2 Sources of internal and external Public Debt 4.3 Effects of Public Debt 4.4 Methods of repayment	12
5	Dec. 2017	5. Budget 5.1 Meaning, nature and objectives of Budget 5.2 Types of Budget – Revenue, Capital, Surplus, Deficit and Balance Budget 5.3 Preparation of Indian Central Budget 5.4 Gender Budget	10
6	Jan. 2018	6. Deficit Financing 6.1 Meaning, Objectives 6.2 Need, Process and Causes 6.3 Trends in India Deficit finance since 2001 6.4 Effects of Deficit Financing	14
7	Feb. 2018	7. Centre-State Financial Relationship 7.1 Constitutional Provisions 7.2 Role and Working of finance Commission 7.3 Recommendation of 13th and 14th finance Commission 7.4 Centre- State Conflict	12
8	March. 2018	8. Fiscal Policy 8.1 Meaning, Role and Objectives of Fiscal Policy 8.2 Review of Indian Fiscal Policy since 2001 8.3 Fiscal Policy in developing economy 8.4 Limitations of Fiscal policy	12

Name of Faculty:- Prof.S.S.Ghongade

Class:- F.Y.B.Com. (D)

Subject:- Business Economics (Micro) 103

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation	20

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Class:- F.Y.B.A (B)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing Economy. 1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector. 1.4 Major issues of Development in India	12
2	Aug. 2017	2. Population . 2.1 Theory of Demographic Transition. 2.2 Size and Growth of Population. 2.3 Features of Indian population 2.3.1 Sex Composition. 2.3.2 Rural Urban Distribution. 2.3.3 Age Composition. 2.3.4 Density of Population. 2.3.5 Occupational Distribution. 2.3.6 Quality of Population. 2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate. 2.5 Problems of Over Population 2.6 Measures for Population Control. 2.7 Population Policy 2005 onward	12
3	Sept. 2017	3. Poverty and Unemployment 3.1 Meaning and Concept of Poverty. 3.2 Poverty line- Need of redefining. 3.3 Measurement of Poverty. 3.4 Causes of Poverty. 3.5 Measures of eradication of Poverty. 3.6 Unemployment – Nature & Types, Causes & Measures	12
4	Oct. 2017	4. Agriculture. 4.1 Place of Agriculture in Indian economy. 4.2 Agricultural Productivity – Causes of Low Productivity & Measures. 4.3 Green Revolution- Achievements & Failures. 4.4 Sources of Agricultural Finance. 4.5 Agricultural Marketing – Defects & Measures. 4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide 4.7 Special Economic Zone- Concept, Features, Problems.	12

5	Dec. 2017	5. Industry. 5.1 Role of Industrialization. 5.2 Industrial Policy – 1991. 5.3 New Economic Reforms – Concept i) Liberalization ii) Privatisation, iii) Globalization . 5.4 Small and Large Scale Industry – Growth and Problems. 5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.	12
6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- T.Y.B.Com. (C)

Subject:- International Economics 303 (B)

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Introduction Meaning and Scope of International Economics. 2. Importance of International Trade 3. Domestic Trade Vs International Trade 4. Role of International Trade in Economic Growth	12
2	Aug. 2017	Theories of International Trade 1 Theory of absolute cost advantage 2 Theory of comparative cost advantage 3 Theory of factor endowment (Heckscher-ohlin Theory, Leontief Paradox) 4 Intra Industrial Trade	12
3	Sept. 2017	Terms of Trade	12

		1 Concept of Terms of Trade A) Gross Barter Terms of Trade B) Net Barter Terms of Trade C) Income Terms of Trade and Trade Policy D) Single Factorial Terms of Trade E) Double Factorial Terms of Trade 2 Factors affecting on Terms of Trade 3 Free Trade Policy – Meaning, Arguments for and against 4 Protection Policy – Meaning, Arguments for and against	
4	Oct.2017	Regional and International Economic Co-operation 1 Regional Co-operation – European Union (E.U) 2 South Asian Association for Regional co-operation (SAARC) 3 Concept of Trade Blocks and Economic Integration 1 South American Preferential Trading Arrangement (SAPTA) 2 North Atlantic free Trade Agreement (NAFTA) 4 BRICS – Introduction & Functions	12
5	Dec.2017	Balance of Payment 5.1 Concept of Balance of Trade and Balance of Payments 5.2 Balance of Payment on current Account and Capital Account 5.3 Measures to correct disequilibrium of Balance of Payment 5.4 Causes of disequilibrium of Balance of Payment 5.5 Convertibility of Rupee on Current and Capital Account.	12
6	Jan.2018	Foreign Exchange Rate 6.1 Meaning of Foreign exchange rate 6.2 Fixed v/s flexible exchange rate 6.3 Theories of Exchange Rate 6.3.1 Purchasing Power Parity Theory 6.3.2 Balance of Payments Theory	12
7	Feb.2018	Foreign Exchange Market 7.1 Structure of foreign exchange market 7.2 Management of Foreign Exchange -inflow and outflow of foreign capital. 7.3 Euro Dollar Market – Nature and Scope 7.4 Advantages & Disadvantages of Foreign Exchange Market.	12
8	March 2018	Factor Mobility and Foreign Trade Policy 8.1 Foreign Capital – Meaning of Foreign Direct Investment and Foreign Institutional Investments 8.2 Role of Multi National Corporations (MNC's) 8.3 Motives and effects of International Labour Migration 8.4 India's Foreign Trade Policy since 1991 Features, Trends and Evaluation.	12

Class:- F.Y.B.Com. F

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20

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Name of Faculty:- Prof.S.V.Dhanapune

Class:- S.Y.B.Com. (D)

Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Period Required
1	July 2017	Basic Concepts of macro Economics	8

		1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	14
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures 4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	12
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation 5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	10
6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigou , Fisher	12

		7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- F.Y.B.Com. C

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium	20

[illegible]

		Theory of Profit	
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Class:- F.Y.B.Com. E
Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments	20

[illegible]

Class:- F.Y.B.Com. G

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Period Required
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20

3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	20
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

KTSP'S
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505
DEPARTMENT OF ENGLISH
Syllabus planning Report
YEAR-2017-2018

Sr.no	CLASS	SUBJECT	TOTAL DIVISIONS	SUBJECT TEACHER
1	FYBA	Com.English	3	Prof.A.G.Kulkarni Prof.Dr.H.J.Chavan Prof.S S Alhat Prof.R H Kale
2		Additional English	1	Prof.A.G.Kulkarni
3		Functional English-I	-	Prof.S S Dhore
4		Functional English-II		Prof.S S Alhat Prof S S Dhore
5	FYB.com	Com.English	4	Dr.V.Y.Raskar Prof.S S Alhat Prof S S Dhore Prof.R H Kale
6	SYBA	Com.English	2	Prof.S S Alhat Prof S S Dhore
7		General Paper-II	-	Prof.Dr.H.J.Chavan Prof.Dr.V.Y.Raskar
8		Spl Paper-I	-	Prof.A.G.Kulkarni
9		Spl Paper-II	-	Dr.V.Y.Raskar

10		Functional English-III	-	Prof S S Dhore
11		Functional English-IV	-	Prof.Dr.H.J.Chavan Prof.S S Alhat
12	SYBsc	English	1	Prof.Dr.H.J.Chavan Prof.R H Kale
13	SYBcs	English	-	Prof.S S Alhat Prof.R H Kale
14	TYBA	Com.English	-	Prof.A.G.Kulkarni Dr.V.Y.Raskar
15		General Paper-III	-	Dr.V.Y.Raskar
16		Spl Paper-III	-	Prof.Dr.H.J.Chavan Prof.S S Alhat
17		Spl Paper-IV	-	Prof.Dr.H.J.Chavan Prof.A.G.Kulkarni Prof.S S Alhat
18		Functional English- V	-	Prof S S Dhore
19		Functional English- VI	-	Prof.S S Alhat

		General Paper-III	-	Dr.V.Y.Raskar
		Spl Paper-III	-	Prof.Dr.H.J.Chavan
		Spl Paper-IV	-	Prof.Dr.H.J.Chavan Prof.A.G.Kulkarni

		Functional English- V	-	Prof S S Dhore
		Functional English- VI	-	Prof.S S Alhat

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.A.G.Kulkarni Sub: English
Year: 2017—18
Class: FYBA(A)
Paper: Compulsory English

Term I					
Sr. No.	Month	Topic	No. of lectures allotted		Remarks
1	July	An Astrologer's Day	5		
2	July	Our Urgent Need of Self-Esteem	5		
3	July	A Red Red Rose	3		
4	July—August	Articles	3 (2+1)		
5	Aug	Taking Leave	3		
6	Aug	Introducing Yourself	2		
7	Aug	The Gift of the Magi	4		
8	Aug	Where the mind is without fear	3		
9	Aug	Prepositions	3		
10	Sept	Introducing people to one another	2		
11	Sept	Making requests and asking for directions	2		
12	Sept	Karma	5		
13	Sept	If you call me	3		
14	Sept	Verbs	3		
15	Sept	Making and accepting an apology	2		
Total			48		
Sr. No.	Month	Topic	No. of lectures allotted		Remarks
1	Nov	Tryst with destiny	5		
2	Nov	Upon Westminster bridge	3		
3	Dec	Tenses	5		
4	Dec	Inviting and accepting/declining an invitation	2		
5	Dec	Making a complaint	2		
6	Dec	Youth and the tasks ahead	5		
7	January	Prospects of democracy in India	4		
8	January	An old woman	3		
9	January	Congratulating, expressing sympathy and offering condolences	2		
10	January	Making suggestions, offering advice and persuading	2		
11	Jan-Feb	The eyes are not here	5		
12	Jan-Feb	Success is counted sweetest	3		
13	Feb-Mar	Subject-verb agreement (Concord)	5		
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2		
Total			48		

(Prof.A.G.Kulkarni)
Subject Teacher

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Year: 2017—18

Name of the teacher: Dr. Hemant J. Chavan

Sub: English

Class: FYBA(B)

**Paper: Compulsory English
Term I**

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	An Astrologer's Day	5	
2	July	Our Urgent Need of Self-Esteem	5	
3	July	A Red Red Rose	3	
4	July—August	Articles	3 (2+1)	
5	Aug	Taking Leave	3	
6	Aug	Introducing Yourself	2	
7	Aug	The Gift of the Magi	4	
8	Aug	Where the mind is without fear	3	
9	Aug	Prepositions	3	
10	Sept	Introducing people to one another	2	
11	Sept	Making requests and asking for directions	2	
12	Sept	Karma	5	
13	Sept	If you call me	3	
14	Sept	Verbs	3	
15	Sept	Making and accepting an apology	2	
Total			48	

(Dr.H.J.Chavan)
Subject Teacher

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	Nov	Tryst with destiny	5	
2	Nov	Upon Westminster bridge	3	
3	Dec	Tenses	5	
4	Dec	Inviting and accepting/declining an invitation	2	
5	Dec	Making a complaint	2	
6	Dec	Youth and the tasks ahead	5	
7	January	Prospects of democracy in India	4	
8	January	An old woman	3	
9	January	Congratulating, expressing sympathy and offering condolences	2	
10	January	Making suggestions, offering advice and persuading	2	
11	Jan-Feb	The eyes are not here	5	
12	Jan-Feb	Success is counted sweetest	3	
13	Feb-Mar	Subject-verb agreement (Concord)	5	
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2	
Total			48	

(Prof.Kale R H)

Subject Teacher

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Year: 2017—18 **Name of the teacher: Prof.S.S.Alhat** **Sub: English** **Class: FYBA(C)**
Paper: Compulsory English
Term I

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	An Astrologer's Day	5	
2	July	Our Urgent Need of Self-Esteem	5	
3	July	A Red Red Rose	3	
4	July—August	Articles	3 (2+1)	
5	Aug	Taking Leave	3	
6	Aug	Introducing Yourself	2	
7	Aug	The Gift of the Magi	4	
8	Aug	Where the mind is without fear	3	
9	Aug	Prepositions	3	
10	Sept	Introducing people to one another	2	
11	Sept	Making requests and asking for directions	2	
12	Sept	Karma	5	
13	Sept	If you call me	3	
14	Sept	Verbs	3	
15	Sept	Making and accepting an apology	2	
Total			48	

(prof.S.S.Alhat)
Subject Teacher

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	Nov	Tryst with destiny	5	
2	Nov	Upon Westminster bridge	3	
3	Dec	Tenses	5	
4	Dec	Inviting and accepting/declining an invitation	2	
5	Dec	Making a complaint	2	
6	Dec	Youth and the tasks ahead	5	
7	January	Prospects of democracy in India	4	
8	January	An old woman	3	
9	January	Congratulating, expressing sympathy and offering condolences	2	
10	January	Making suggestions, offering advice and persuading	2	
11	Jan-Feb	The eyes are not here	5	
12	Jan-Feb	Success is counted sweetest	3	
13	Feb-Mar	Subject-verb agreement (Concord)	5	
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2	
Total			48	

(Prof.S S Alhat)

Subject Teacher

KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning

Name of the teacher: Prof. A.G. Kulkarni Sub: English

Year: 2017-18

Class: FYBA

Paper: Additional English

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	INTRODUCTION	5	
2		SONNET 29	5	
3		NO MEN ARE FOREIGN	3	
4		A LESSON MY FATHER TAUGHT ME	3	
5	Aug	TOAETED ENGLISH	3	
6		ROMANCE OF A BUSY BROKER	2	
7		A DAY'S WAIT	4	
8		NOTES	3	
9		REVISION OF THE TOPICS	3	
10		HOME WORK	2	
11	Sept	THE WORLD IS TOO MUCH WITH US	2	
12		THE LISTNERS	5	
13		CHARACTERISTICS OF HUMAN LANGUAGE	3	
14		FUNCTIONS OF LANGUAGE	3	
15		REVISION	2	
Total			48	
Sr. No.	Month	Topic	No.of lectures allotted	Remarks
1	Nov	THE DALL'S HOUSE	5	
2		MARRIAGE IS A PRIVATE AFFAIR	3	
3	Dec	ROD NOT TAKEN	5	
4		THE SUN RISING	2	
5		THE MOUNTAIN AND THE SQUIRREL	2	
6		BALLAD OF THE LNDLORD	5	
7	January	LITHANIA	4	
8		SWAN SONG	3	
9		SWAN SONG	2	
10		ASPECTS OF LNGUAGE	2	
11	Jan-Feb	BENCHES OF LINGUISTICS	5	
12		INTRODUCTION TO THE SOUNDS OF ENGLISH	3	
13	Feb-Mar	REVISION NOTES	5	
14		NATURE OF THE QUESTION PAPER	2	
Total			48	

(Prof. A.G. Kulkarni)

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.S S Dhore Sub: Functional English I Year: 2017-18(Term-I)

Class: FYBA

Paper I: An Introduction to English Language and Writing Skills in English

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	July	What is language?	3	
2		Levels of linguistic analysis	5	
3	Aug	Verbal and non verbal communication	4	
4		Organs of speech	2	
5		Speech mechanism	2	
6		Vowels, consonants	5	
7		Consonant clusters	2	
8	Sept	Remedial grammar	4	
		Tenses and concord	3	
10		Passive voice	3	
11		Countable nouns	3	
12		Uncountable nouns	4	
13	Octo	Common Indian errors	4	
14		Understanding a passage-its content and structure	3	
15		Use of a dictionary	3	
Total			50	

Subject Teacher
Prof.S S.Dhore

KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.S S Dhore Sub: Functional English I Year: 2016-17 (Term-II)

Class: FYBA

Paper I: An Introduction to English Language and Writing Skills in English

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	Dec	Define phonetics & Phonology & Difference between them	4	
2		Syllable	4	
3		Word accent	4	
4		Sentence accent	4	
5	January	Weak forms	4	
6		Intonation	4	
7		Writing a paragraph	3	
8		Types of paragraph	3	
9		Writing a paragraph(Guided composition)	2	
10	Feb	Information transfer	8	
11		Converting information from charts	5	
12		Converting information from tables	3	
13	March	Converting information verbally and vice-a-versa	4	
Total			52	

Subject Teacher
Prof.S S Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.Sandeep Dhore & Prof.A.G.Kulkarni
Sub: Functional English II Year: 2017-18(Term-I) Class: FYBA
Paper II: Oral Communication in English

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	July	Introducing oneself	12	
2	Aug/Sept	Introducing others. Simple oral descriptions	12	
3	Sept	describing familiar things, places, persons, pictures	12	
4	Oct	Describing simple events, Routine Activities of Oneself and others & Key Competency Modules	12	
Total			48	

Subject Teacher

Prof.A.G.Kulkarni&

Prof.S.S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Prof.Sandeep Dhore & Prof.A.G.Kulkarni
Sub: Functional English II Year: 2017-18(Term-II) Class: FYBA
Paper II: Oral Communication in English**

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	Nov/Dec	Telling stories with help of Points / Pictur	12	
2	Dec	Asking questions to get Information	12	
3	Jan/Feb	Reading a Dialogue/ drama	12	
4	Feb/Mar	Making a short speech on a given subject for about 2/3 minutes Telephonic Communication	12	
Total			48	

Subject Teacher

Prof.A.G.Kulkarni&

Prof.S.S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: Compulsory English

Year: 2017-18(Term-I)

Class: F.Y.B.Com

Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	Remarks
1	July	The Power of Prayer	4	
2		Water: The Elixir for life	4	
3		A Talk on Advertising	6	
4	Aug	The Gold Frame	4	
5		The Lottery Ticket	6	
6		The Harp of India	4	
7	Sept	Money-Madness	3	
8		Metting & Greeting People	4	
9		Dialogues	4	
10		Group Discussion	3	
11	Oct	Interview	5	
12		Interviewing Skills	5	
Total			52	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: Compulsory English
Year: 2017-18(Term-II) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	Remarks
1	Dec	Indra Nooyi:A Corporate Giant	4	
2		The need for excellence	4	
3		Toasted English	6	
4	Jan	The Woodrose	4	
5		A Devoted Son	4	
6		The Soul's Prayer	3	
7		Stooping By Woods on a Snowy Evening	3	
8	Feb	Letter Writing	5	
9		Report Writing	5	
10		Resume Writing	5	
11	March	E;Mails	6	
Total			49	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Mr. DHORE S S Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)**

Sr. No .	Month	Topics	No. of lectures allotted while planning	Remarks
1	July	The Power of Prayer	4	
2		Water: The Elixir for life	4	
3		A Talk on Advertising	6	
4	Aug	The Gold Frame	4	
5		The Lottery Ticket	6	
6		The Harp of India	4	
7	Sept	Money-Madness	3	
8		Meeting & Greeting People	4	
9		Dialogues	4	
10		Group Discussion	3	
11	Oct	Interview	5	
12		Interviewing Skills	5	
Total			52	

Subject Teacher
Prof.Dhore S S

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.Dhore S S Sub: Compulsory English
Year: 2017-18(Term-II) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	Remarks
1	Dec	Indra Nooyi: A Corporate Giant	4	
2		The need for excellence	4	
3		Toasted English	6	
4	Jan	The Woodrose	4	
5		A Devoted Son	4	
6		The Soul's Prayer	3	
7		Stooping By Woods on a Snowy Evening	3	
8	Feb	Letter Writing	5	
9		Report Writing	5	
10		Resume Writing	5	
11	March	E;Mails	6	
Total			49	

Subject Teacher
Prof.Dhore S S

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof. Alhat S S Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	Remarks
1	July	The Power of Prayer	4	
2		Water: The Elixir for life	4	
3		A Talk on Advertising	6	
4	Aug	The Gold Frame	4	
5		The Lottery Ticket	6	
6		The Harp of India	4	
7	Sept	Money-Madness	3	
8		Meeting & Greeting People	4	
9		Dialogues	4	
10		Group Discussion	3	
11	Oct	Interview	5	
12		Interviewing Skills	5	
Total			52	

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.KALE R H Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	Remarks
1	July	The Power of Prayer	4	
2		Water: The Elixir for life	4	
3		A Talk on Advertising	6	
4	Aug	The Gold Frame	4	
5		The Lottery Ticket	6	
6		The Harp of India	4	
7	Sept	Money-Madness	3	
8		Metting & Greeting People	4	
9		Dialogues	4	
10		Group Discussion	3	
11	Oct	Interview	5	
12		Interviewing Skills	5	
Total			52	

Subject Teacher
Prof.Kale R H

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.Kale R H Sub: Compulsory English
Year: 2017-18(Term-II) Class: F.Y.B.Com
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	Remarks
1	Dec	Indra Nooyi:A Corporate Giant	4	
2		The need for excellence	4	
3		Toasted English	6	
4	Jan	The Woodrose	4	
5		A Devoted Son	4	
6		The Soul's Prayer	3	
7		Stooping By Woods on a Snowy Evening	3	
8	Feb	Letter Writing	5	
9		Report Writing	5	
10		Resume Writing	5	
11	March	E;Mails	6	
Total			49	

Subject Teacher
Prof.Kale R H

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.S.S. Dhore Sub: Compulsory English
Year: 2017-18(Term-I) Class: SYBA (A)
Paper: Compulsory English (Literary Landscape)

Sr. No.	Month	Topic	No. of lectures allotted while planning	Remarks
1	July	Playing the English Gentleman	4	
2		The homecoming	6	
3	Aug	The quality of mercy	4	
4		The village schoolmaster	4	
5		A letter by Hazlitt to his son	4	
6		The solitary reaper	4	
7	Sept	O captain! my captain!	4	
8		Freedom of the press	4	
9		Vocabulary	8	
10	Oct	vocabulary	4	
11		Grammar	6	
Total			52	

Subject Teacher

Prof.S.S. Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus planning Report

**Name of the teacher: Mr Dhore S.S. Sub: Compulsory English
Year: 2017-18 (Term-II) Class: SYBA (A)
Paper: Compulsory English (Literary Landscape)**

Sr. No.	Month	Topic	No. of lectures allotted while planning	Remarks
1	Dec	A Cup of Tea	4	
2		Laugh and be Merry	4	
3		The Last Leaf	4	
4	Jan	Still I Rise	4	
5		Kalpana Chawla	4	
6		Another Woman	4	
7	Feb	My Lost Dollar	4	
8		My Grandmothers House	4	
9		Grammar	6	
10	Mar	Paragraph Writing	4	
11		Report Writing	4	
12		Letter Writing	4	
Total			50	

Subject Teacher

Prof.S.S. Dhore

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.S.S. Alhat Sub: Compulsory English
Year: 2017-18(Term-I) Class: SYBA (B)
Paper: Compulsory English (Literary Landscape)

Sr. No.	Month	Topic	No. of lectures allotted while planning	Remarks
1	July	Playing the English Gentleman	4	
2		The homecoming	6	
3	Aug	The quality of mercy	4	
4		The village schoolmaster	4	
5		A letter by Hazlitt to his son	4	
6		The solitary reaper	4	
7	Sept	O captain! my captain!	4	
8		Freedom of the press	4	
9		Vocabulary	8	
10	Oct	vocabulary	4	
11		Grammar	6	
Total			52	

Subject Teacher

Prof.S.S. Alhat

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Mrs. Alhat S.S. Sub: Compulsory English
Year: 2017-18 (Term-II) Class: SYBA (B)
Paper: Compulsory English (Literary Landscape)

Sr. No.	Month	Topic	No. of lectures allotted while planning	Remarks
1	Dec	A Cup of Tea	4	
2		Laugh and be Merry	4	
3		The Last Leaf	4	
4	Jan	Still I Rise	4	
5		Kalpana Chawla	4	
6		Another Woman	4	
7	Feb	My Lost Dollar	4	
8		My Grandmothers House	4	
9		Grammar	6	
10	Mar	Paragraph Writing	4	
11		Report Writing	4	
12		Letter Writing	4	
Total			50	

Subject Teacher

Prof.S.S. Alhat

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Year: 2017-18 **Name of the teacher: Dr. Hemant J. Chavan & Dr.V.Y.Raskar** **Sub: English**
Annual **Class: SYBA**
Paper: General Paper II: Study of English Language and Literature

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	Introduction—What is Literature?	1	
2	July	Introduction—Examining some literary devices	1.5	
3	July	Introduction—Plato and mimesis	1.5	
4	July	Introduction—Components of a literary piece and approaches to literature	1.5	
5	July	Introduction—Elements of the short story	1.5	
6	July	Introduction—Short story: A short history	1.5	
7	July	Introduction—Short story: The genre	1.5	
8	July	The Three Questions—Lev Nikolayevich Tolstoy	4	
9	July—August	Mother of a Traitor—Maxim Gorky	4 (1+3)	
10	August	The Bet—Anton Chekhov	4	
11	August	My Uncle Jules—Guy de Maupassant	4	
12	August	The Bottle Imp—R.L.Stevenson	3	
13	Aug—September	Phonology—Organs of speech, speech mechanisms	4 (1+3)	
14	September	Phonology—Description and classification of consonants and vowels	3	
15	September	Phonology—Concept of syllable	3	
16	Oct	Phonology—Word accent, sentence accent	3	
17	Oct	Phonology—Tone groups, placement of nuclear/tonic accent	3	
18	Oct	Phonology—Concept of intonation, uses/types of tones	3	
Total			48	
Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	December	After Twenty Years—O.Henry	3	
2	December	Lawley Road—R.K.Narayan	3	
3	December	The Open Window—Hector Hugh Munro	3	
4	December	Kabuliwallah—Rabindranath Tagore	3	
5	December	A Signal Man—Charles Dickens	4	
6	January	Morphology—What is morphology?	5	
7	January	Morphology—Concept of morpheme, allomorph, zero allomorph, types of morphemes (free and bound), Prefixes and Suffixes (class-changing and class-maintaining)	6	
8	January	Morphology—Inflectional and Derivational suffixes	5	
9	February	Sociolinguistics—National varieties of English: British, American and Indian	5	
10	February	Sociolinguistics—Regional and social dialects, standard dialect, concept of register, formal and informal styles	6	
11	February	Sociolinguistics—Pidgins and Creoles, code-switching and code-mixing, borrowings	5	
Total			48	

Prof.Dr.V.Y.Raskar
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Prof.KULKARNI A G Sub: SPL-I
Year: 2017-18(Term-I) Class: SYBA
Paper SPL I: UNDERSTANDING DRAMA**

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	JUNE	What is Drama?	8	
2	JULY	Elements of Drama	8	
3		Types of drama	8	
4	AUGUST	The Importance of being Earnest by Oscar Wilde-theme	3	
5		Characters	3	
6		Plot	3	
7		Dialogue	3	
8		Stage properties	3	
9	SEPT	The Three Unities	3	
10		Conflict	3	
11	OCT	Elements of structure	3	
		TOTAL	48	

Subject Teacher

Prof.Kulkarni A G

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Prof.A.G.Kulkarni Sub: Spl-I
Year: 2017-18 (Term-II) Class: SYBA
Paper SPL I: UNDERSTANDING DRAMA**

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	NOV	Death of a Salesman bt Arthur Miller-Theme	3	
2		character	3	
3		Plot	3	
4	DEC	Dialogue	3	
5		Stage properties	3	
6		The Three Unities	3	
7		conflict	3	
8		Elements of structure	3	
9	JAN	Hayvandana by Girish Karnad-Theme	3	
10		character	3	
11		Plot	3	
12	FEB	Dialogue	3	
13		Stage properties	3	
14		The Three Unities	3	
15	MARCH	conflict	3	
16		Elements of structure		
		TOTAL	48	

Subject Teacher

Prof.A.G.Kulkarni

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Mr. Vikas Y. Raskar Sub: English Special Paper-II
Year: 2017-18 (Term-I) Class: SYBA
Paper: English Special Paper II: Appreciating Poetry (Auroral Musings)**

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
	July	What is poetry?	2	
		Elements of poetry	3	
		Types of poetry	3	
		The ballad of sir Patrick Spens	3	
	Aug	Edmund Spenser- Men call you fair	2	
		Sir Philip Sidney- O grammar rules	3	
		William Shakespeare- Sonnet 130	3	
		John Donne- Broken heart, Better my heart	6	
	Sept	Andrew Marvell- The coronet, The definition of love	6	
		John Milton- The invocation, On his blindness	5	
		John Dryden- Alexander's feast	3	
		Alexander Pope- Rape of the lock, 'toilet scene'	3	
	Octo	Thomas Gray- Ode on the death of a favourite cat, drowned in a tub of gold fishes	10	
	Total			

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: English Special Paper-II

Year: 2017-18 (Term-II)

Class: SYBA

Paper: English Special Paper II: Appreciating Poetry (Auroral Musings)

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	Dec	William Wordsworth- Expostulation and reply, The tables turned, A slumber did my spirit seal , S T Coleridge- The nightingale, Kubala Khan: A vision in fragments	7	
2		P B Shelley- Ode to the west wind	4	
3		John Keats- La belle dame sans merci, Ode to autumn	4	
4	Jan	Alfred Tennyson- Ulysses	4	
5		Robert Browning- my last duchess	4	
6		Mathew Arnold- Dover beach	4	
7		Dane Rossetti- The blessed damozel	4	
8	Feb	Thomas Hardy- The oxen, To an unborn pauper child	6	
9		G M Hopkins- Pied beauty, God's grandeur	4	
10		W B Yeats- Sailing to Byzantium	3	
11	March	Ralph Emerson- Brahma, Walt Whitman- A noiseless patient spider	5	
12		Emily Dickinson- Because I could not stop for death	2	
Total			51	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English III Year: 2017-18 (Term-I)
Class: SYBA
Paper III: Advanced Writing Skills and Introduction to Electronic Media

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	July	Vocabulary Building	10	
2	Aug	Register and Style	7	
		Defining and describing	9	
3	Sept	Paragraph writing	10	
4	Oct	Letter Writing	7	
		Scrape book	5	
	Oct	Test	2	
Total			50	

Subject Teacher
Prof. Dhore S.S.

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English III Year: 2017-18 (Term-II)

Class: SYBA

Paper III: Advanced Writing Skills and Introduction to Electronic Media

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	Dec	Writing Reports	8	
2	Jan	Preparing and writing Bibliography	6	
		Writing Scripts for compering a programme	9	
3	Feb	Introduction to Electronic Media: Radio	9	
4		Introduction to Electronic media: TV	9	
5	Mar	Similarity and differences between Radio and TV	7	
		Test	2	
Total			50	

Subject Teacher
Prof. Dhore S.S.

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: ALHAT S S & S S Dhore Sub: Functional English (Vocational)
Year: 2017-18 Annual Class: SYBA
Paper: Functional English Paper IV: Oral Communication in English: Intermediate and Key Competency Modules (Practical Paper)

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July—August	Reading out news from the newspaper	6	
2	August—Sept	Talking in different situations: Formal and informal	6	
3	Sept—Oct	Compeering/anchoring a programme	6	
4	October	Role playing	6	
Total			24	
Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	December	Group discussion	8	
2	December	Personal Interview	6	
3	January	Interviewing	6	
4	January	Conducting Panel discussion	6	
5	Jan-Feb	Preparing and presenting an ad of a product (emphasis on language)	8	
6	February	Opening/closing a radio/TV programme	3	
7	February	Appreciation of a TV/Radio programme	3	
8	February	Abstract Thinking	3	
9	February	Health and Diet	3	
10	March	Basic Human Values, Individual and Society	2	
Total			48	

SubjectTeacher
Prof.Alhat S S

Prof.DhoreS S

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Dr. Hemant J. Chavan Sub: Functional English (Vocational)
Year: 2017-18 Annual Class: SYBA
Paper: Functional English Paper IV: Oral Communication in English: Intermediate and Key Competency
Modules (Practical Paper)

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July— August	Reading out news from the newspaper	6	
2	August— Sept	Talking in different situations: Formal and informal	6	
3	Sept—Oct	Compeering/anchoring a programme	6	
4	October	Role playing	6	
Total			24	

(Dr.H.J.Chavan)
Subject Teacher

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: Compulsory English
Year: 2017-18 (Term-I) Class: TYBA (A & B)
Paper: Compulsory English (Literary Pinnacles)

Sr. No.	Month	Topic	No. of lectures allotted while planning	Remarks
1	July	Intro of Prose & Poetry	4	
2		Uncle Podger Hangs a Picture	4	
3	Aug	How Wealth Accumulates and Men Decay	4	
4		Defining Poetry, All The Word's a Stage	4	
5		La Belle Dame Sans Merci	4	
6		An Intro to Communicational Skills	2	
7	Sept	Define Communication, Features of Communication,	8	
8		Types of Communication & Instances & exercises of Communication	8	
9	Octo	The Process of Communication	4	
10		Verbal & Non-verbal Communication	6	
11		Tips for Effective Communication	6	
Total			54	

Subject Teacher

Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: Compulsory English
Year: 2017-18 (Term-II) Class: TYBA (A & B)
Paper: Compulsory English (Literary Pinnacles)

Sr. No.	Month	Topic	No. of lectures allotted Div A & B	Remarks
1	Dec	On the rule of the road	6 (3+3)	
2		The pleasures of ignorance	6 (3+3)	
3	Jan	Afterwards by Hardy	4 (2+2)	
4		Afterwards by Hardy, The ballad of father Gilligan by W.B.Yeats, An introduction to soft skills	10 (5+5)	
5	Feb	Leadership Skills	6 (3+3)	
6		Teamwork Skills, Time Mangement Goal, Setting	10 (5+5)	
7	March	Stress Management, Positive Attitude	8 (4+4)	
Total			50	

Subject Teacher
Dr.Vikas Y. Raskar

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Vikas Y. Raskar Sub: English General Paper III
Year: 2017-18 (Term-I) Class: TYBA
Paper: Advanced Study of English Language and Literature

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	Intro to Indian Writing in English & Indian Poetry	4	
2		Song of the Hindustanee Minstrel	4	
3		Silent Steps	4	
4	August	Peace	2	
5		Song of Radha, the Milkmaid	3	
6		Poet, Lover, Birdwatcher	3	
7		An Introduction	3	
8		The Striders	3	
9	Sept	Sea Breeze Bombay	3	
10		Syntax, Concept of Phrase,	3	
11		Phrase Structure Rules, Types of Phrases	6	
12		Phrases-Adj, Adv, PP & VP	4	
13	Octo	Concept & parts of Clauses, Types of Sentences, Functional Classification, Wh-ques, Yes-No, Tag que, Negative Sen, do-Support & Imperative	8	
Total			50	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

**Name of the teacher: Vikas Y. Raskar Sub: English General Paper III
Year: 2017-18 (Term-II) Class: TYBA
Paper: Advanced Study of English Language and Literature**

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	Dec	What is Semantics? Difference bet Denotative & Connotative meaning	6	
2		Lexical relations: Synonymy, Antonymy, Homonymy, Homography & Homophony	8	
3	Jan	Polysymy, Diff bet Homonymy & Polysemy,	6	
4		Superordinate terms & Hyponymy, Metonymy	8	
5	Feb	What is Pragmatics?, Speech Acts:Types, Austin's typology, Scarle's typology	6	
6		Direct and Indirect Speech Acts	6	
7		The Co-operative principle and its Maxims	2	
8		The Politeness Principle and its Maxims	2	
9	March	The captive air of chandipur-on-sea byMahapatra, The Bus by Arun Kolatkar	4	
10		The season of the Plains by Agha Shahid Ali, Tribute to Papa by Mamta Kalia	4	
Total			52	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: **Dr. Hemant J. Chavan** Sub: **English**
 Year: **2017-18** Class: **TYBA**
 Paper: **English Special Paper III: Appreciating Novel**

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July	What's Novel? A brief history of novel as a literary form	3	
2	July—August	Elements of Novel: theme, characters, plot, structure, narrative techniques, point of view, conflict, setting and atmosphere, dialogue	9 (4+5)	
3	August	Types of Novel: epistolary, picaresque, bildungsroman, historical, regional, psychological, satire, realistic, experimental novel, science fiction	9	
4	August—September	Other literary terms related to novel	3 (2+1)	
5	September—October	<i>Animal Farm</i> by George Orwell	24 (10+14)	
Total			48	
Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	November—December	<i>The Old Man and the Sea</i> by Ernest Hemingway	24	
2	January—February	<i>The Guide</i> by R.K.Narayan	24	
Total			48	

(Prof. Alhat S S)
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof.KULKARNI A G Sub: SPL-IV
Year: 2017-18(Term-I) Class: TYBA
Paper IV: An Introduction to Literary Criticism and Critical Appreciation.

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	JULY	What is criticism? Definition and principles	4	
2		Qualifications of good critic	4	
3				
4	AUGUST	Biographical approach to literature	4	
5		Sociological approach to literature	4	
6	SEPT& OCT	Psychological approach to literature	4	
7		Samuel Johnson; Defense of Shakespeare's intermingling of the tragic and the comic in drama	4	
Total			24	

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	December	Unit—II: Helen Gardner: The Sceptre and the Torch	6	
2	December	Unit—II: Criticism: Visible and Invisible	6	
3	January	Unit—III: Literary/Critical Terms	6	
4	January	Unit—IV: Practical criticisms from poems, passages from novels and plays, etc.	6	
5	January			
6	February			
7	February			
Total			24	

Subject Teacher

Prof.Kulkarni A G

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.Chavan H J Sub: English Special Paper IV
Year: 2017-18 Annual Class: TYBA
Paper: English Special Paper IV: Introduction to Literary Criticism

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July—August	Classical Criticism	4 (3+1)	
2	August	Neo—Classical Criticism	3	
3	August	Romantic Criticism	3	
4	August—Sept	Victorian Criticism	4 (1+3)	
5	Sept	Modernism	4	
6	Sept-Oct	Formalist Criticism	3 (2+1)	
7	Oct	New Criticism	3	
Total			24	

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.Alhat S S Sub: English Special Paper IV
Year: 2017-18 Annual Class: TYBA
Paper: English Special Paper IV: Introduction to Literary Criticism

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	Terms	4	4	
2	December	Coleridge's theory of Imagination	4	4	
3	January	Coleridge's theory of Imagination	4	4	
4	January	Dryden's essay on dramatic poesy	4	4	
5	January	Dryden's essay on dramatic poesy	4	4	
6	February	terms	2	2	
7	February	terms	2	2	

Total	24	24	
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Subject Teacher

Prof.Alhat S S

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: **Dr. Hemant J. Chavan** Sub: **English Special Paper IV**
Year: 2017-18 **Annual** **Class: TYBA**
Paper: English Special Paper IV: Introduction to Literary Criticism

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	July—August	Classical Criticism	4 (3+1)	
2	August	Neo—Classical Criticism	3	
3	August	Romantic Criticism	3	
4	August—Sept	Victorian Criticism	4 (1+3)	
5	Sept	Modernism	4	
6	Sept-Oct	Formalist Criticism	3 (2+1)	
7	Oct	New Criticism	3	
Total			24	
Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	December	Unit—II: Helen Gardner: The Sceptre and the Torch	6	
2	December	Unit—II: Criticism: Visible and Invisible	6	
3	January	Unit—III: Literary/Critical Terms	6	
4	January	Unit—IV: Practical criticisms from poems, passages from novels and plays, etc.	6	
5	January			
6	February			
7	February			
Total			24	

(Dr.H.J.Chavan)
Subject Teacher

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.A.G.Kulkarni Sub: Spl-IV
Year: 2017-18 (Term-II) Class: TYBA
Paper I: An Introduction to Literary Criticism and Critical Appreciation.

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	NOV	Classicism,romanticism,the absurd, modernism	2	
2		Allegory and personification	2	
3	DEC	Asides,Solliloquis	2	
4		Comic relief	2	
5		Poetic justice	2	
6	JAN	Intentional fallacy	2	
7		Round and flat character	2	
8	Feb/MARCH	Analysis of poems	10	
Total			24	

Subject Teacher

Prof.A.G.Kulkarni

KTSP Mandal's
vHutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Mr. Sandeep S. Dhore Sub: Fun English V Year: 2017-18 (Term-I)
Class: TYBA
Paper V: Introduction to Print media and Writing for mass media

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	July/Aug	Writing news	8	
2	Aug/Sept	Letter to editors expressing views on given data	10	
3	Sept/Oct	Changing verbal aspects of an advertisement	10	
4		Book reviews	12	
5		Key competency modules	8	
Total			48	

Subject Teacher
Mr. Sandeep S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Planning Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English -V Year: 2017-18 (Term-II)

Class: TYBA

Paper V: Introduction to Print media and Writing for mass media

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	Dec	Writing Articles and Features	12	
2	Jan	Technical Writing	10	
3	Jan-Feb	Translation with reference to Mass Media	10	
4	Feb-Mar	Film Review	10	
5	Mar	Tests	6	
		TOTAL	48	

Subject Teacher
Prof. Dhore S.S.

Syllabus Planning Report

Sr. No.	Month	Topic	No. of lecturers allotted	Remarks
1	JUNE	Entrepreneurship development-meaning and concept,	3	
2		Qualities of being an Entrepreneur	3	
3	JULY	SWOT analysis	3	
4		Functions of an Entrepreneur	3	
5		Meaning, types and definition of SSI	6	
6		Meaning, definition and scope of service industries.	6	
7	AUG	Similarities and differences between small scale and service industries	2	
8		Primary project report	2	
9		Detailed project report	2	
10		Techno economic feasibility report	2	
11		Meaning and definition of personal management	2	
12		Basic knowledge of Income tax	2	
13		Basic knowledge of sales tax,VAT	4	
14	SEPT	Factory act and payment of wages act	4	
		Shop act	4	
		TOTAL	48	

Prof. Alhat s s

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Planning Report

Name of the teacher: Prof.Alhat S S Sub: FUN ENGLISH PAPER -VI
Year: 2017-18 (Term-II) Class: TYBA
Fun Paper VI:ENTREPRENURSHIP DEVELOPMENT,PROJECT REPORT AND ORAL COMMUNICATION IN ENGLISH

Sr. No.	Month	Topic	No. of lectures allotted	Remarks
1	NOV	Voice culture	2	
2		Voice culture	2	
3		Voice modulation	2	
4		Voice modulation	2	
5		Practical exam	2	
6	DEC	Practical exam	10	
7		Prepare news bulletin for radio/television	3	
8		International news	3	
9	JANUARY	National news	3	
10		Regional news	2	
11		Local news	2	
12		Sports news	2	
13		speech	2	
14		speech	2	
15		Talking in group	3	
16	FEBRUARY	Talking in group	3	
		TOTAL	48	

Subject Teacher

Prof. Alhat s s

TIME TABLE

F.Y Bsc(Computer Science) Sem-I A.Y.2017-18

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:30-9:15	STAT1	FDS	C LANG	FDS-ABD	C LANG	ELF
9:25-10:10	M2	ELF2	ELF2	ELF2	ELF2	C LANG
10:15-11:00	ELF1	M2	FDS		ELF2	M1
11:05-11:50	ELF1	M1	STAT1	M2	M1	STAT2
11:55-12:30	FDS	STAT1	ELF1	C LANG	STAT2	STAT1
12:35-1:30	C LANG- LAB		STAT PRACTICAL		FDS- SAC ELF2	

S.Y. Bsc(Computer Science)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:30-9:15	M2	FVS			ENG	FVS
9:25-10:10	M2	ELF2	ELF1	RD	DS	M2
10:15-11:00	ELF1	RD	ELF2	ELF1	RD	
11:05-11:50	ELF1	ELF1	M1	DS	ELF2	
11:55-12:30	M1	DS	RD	M1	M1	ELF2-A
12:35-1:30	DS	ENG	ENG	ENG	M2	ELF2-B
		DS-A	STAT1A PRACT	STAT1 PRACT		RD PRACT

T.Y. Bsc(Computer Science)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:30-9:15	SYS PRO	TCS	COSE	CN	SYS PRO	TCS
9:25-10:10	SYS PRO			CN	SYS PRO	TCS
10:15-11:00	ELF2	JAVA PRACT	PHP	PHP	PHP	JAVA
11:05-11:50				SYS PRO	JAVA	CN
11:55-12:30				TCS	CN	JAVA
12:35-1:30	PHP	CN	COSE	JAVA	TCS	SYS PRO
				COSE	PHP	COSE

PRIN. CH. KUTKARNI

PRIN.

Department of Computer Science
Maulana Azad College, Chikankar
Pune-411 004 (Phone: 2222222)

PRIN. DEENILPATIL
PRINCIPAL

Maulana Azad College, Chikankar
Pune-411 004 (Phone: 2222222)

TIME TABLE

F.Y Bsc(Computer Science) Sem-II A.Y-2017-18

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8.20-9.10	STAT1	FDS	CLANG	EDWARD	CLANG	PLD1
9.20-10.10	M2	ELE 2	ELE2	ELB-3	ERD	CLANG
10.10-11.00	ELE 2	M2	FOR		PLD-4	M1
11.00-11.50	EL1	M1	STAT1	M2	M1	STAT2
11.50-12.30	FDS	STAT1	ELE1	CLANG	STAT2	STAT1
12.30-1.30	CLANG A&P ELE-C		STAT PRACTICA		FOR- S&C ELE-D	

S.Y. Bsc(Computer Science)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8.20-9.10	M2	ENG			ENG	FVS
9.20-10.10	M2	ELE2	ELE1	M1	C++	M2
10.10-11.00	EL1	SE	ELE2	PLD1	SE	
11.00-11.50	EL1	ELD1	M2	C++	ELE2	PLD-A
11.50-12.30	M1	C++	SE	M1	M1	ENH-B
12.30-1.30	C++	ENG	ENG	ENG	M2	
12.30-1.30		EL1-B C++-A	STAT-A PRACT	STAT-B PRACT		SE-PLAC

T.Y. Bsc(Computer Science)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8.20-9.10	OS	OC	GRAPHICS	CN-II	OS	OC
9.20-10.10				PHP-II	PHP-II	GRAPHICS
10.10-11.00	OS	JAVA	PHP	OS	AJAVA	CN-II
11.00-11.50	PRACT	PRACT		OC	CN-II	AJAVA
11.50-12.30				AJAVA	OC	OS
12.30-1.30	PHP-II	CN-II	GRAPHICS	GRAPHICS	PHP-II	AJAVA


PROF. CP KULKARNI
 HOD

Department of Computer Science
 Pimpri Chinchwad Education Trust
 Pimpri Chinchwad, Pune-411 004


PRIN. DR. S.R. PATHI
 PRINCIPAL

Indira College of Education
 (Arts, Science & Commerce)
 Pimpri Chinchwad

K.T.S.P. Mandal's
Huttnma Rajguru Mahavidyalaya, Rajgurunagar
Tel-020-2661-0000
Department of B.Sc(Computer Science)
Workload A.Y-2017-18 Sem-I

Dr. A.P. Kulkarni

TIME	MON	TUE	WED	THUR	FRI	SAT
8:30-9:10			S.Y.		F.Y. Practical	
9:25-10:10	S.Y.	F.Y.	T.Y.	S.Y.		S.Y. Practical
10:10-11:00	F.Y.	S.Y.				
11:00-11:30						
11:30-12:30						
12:45-1:45		S.Y. Practical				

TOTAL WORKLOAD-19

Dr. A.S. Tangare

TIME	MON	TUE	WED	THUR	FRI	SAT
8:30-9:10		F.Y.		F.Y. PRACT		
9:25-10:10		T.Y. PRAC				
10:10-11:00		T	F.Y.		T.Y.	
11:00-11:30						T.Y.
11:30-12:30	F.Y.			T.Y.		
12:45-1:45					F.Y. PRACT	

TOTAL WORKLOAD-19

11Prof. J. S. Salunkhe

TIME	MON	TUE	WED	THUR	FRI	SAT
8:20-9:10			LY		S.Y	
9:25-10:10			LY PRACT	LY	LY	S.Y PRACT
10:30-11:00				S.Y		
11:00-11:50		S.Y				
11:50-12:30	S.Y					
12:45-3:45	LY	S.Y PRACT	LY	LY	LY	LY

TOTAL WORKLOAD-24

12Prof. V. D. Shinde

TIME	MON	TUE	WED	THUR	FRI	SAT
8:20-9:10	LY			S.Y	LY	
9:25-10:10	LY PRACT	S.Y			S.Y	
11:00-11:30				LY		
11:00-11:30			S.Y			
11:30-12:30						LY
12:45-3:45				S.Y PRACT		S.Y PRACT

TOTAL WORKLOAD-20

Typical F.Y. Duties

TIME	MON	TUE	WED	THUR	FRI	SAT
8:30-9:30		T.Y.	F.Y.	T.Y.	F.Y. PRACT	T.Y.
9:25-10:30						F.Y.
10:10-11:00						T.Y.
11:30-11:50				T.Y.	T.Y.	
11:34-12:30				F.Y.	T.Y.	
12:45-2:45	F.Y. PRACT	T.Y.				

TOTAL WORKLOAD-19

Typical D.B.K. Schedule

TIME	MON	TUE	WED	THUR	FRI	SAT
8:20-9:10		S.Y.		F.Y. PRACT		S.Y.
9:25-10:15			S.Y.			
10:10-11:00	S.Y.				S.Y.	
11:30-11:50	F.Y.					
11:30-12:30			F.Y.			
12:45-2:45	F.Y. PRACT				F.Y. PRACT	

TOTAL WORKLOAD-19


 Agent
 Department of Computer Science
 Universiti Teknologi Malaysia
 Putrajaya, Negeri Sembilan 43100

K.T.S.P. mandale's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar
Tal-Khed Dist-Pune
Department of B.Sc(Computer Science)
Workload A.Y-2017-18 Sem-II

Dr. G.A.P. Kulkarni

TIME	MON	TUE	WED	THUR	FRI	SAT
8.25-9.10			S.Y.		T.Y. Practical	
9.25-10.10	S.Y.	P.Y.	P.Y.	S.Y.		S.Y. Practical
10.10-11.00	P.Y.	S.Y.				
11.00-11.50						
11.50-12.30						
12.35-1.45		S.Y. Practical				

TOTAL WORKLOAD-19

Dr. A.S. Dapure

TIME	MON	TUE	WED	THUR	FRI	SAT
8.25-9.10		P.Y.		P.Y. Practical		
9.25-10.10		T.Y. Practical				
10.10-11.00		T	P.Y.		T.Y.	
11.00-11.50						T.Y.
11.50-12.30	P.Y.			T.Y.		
12.35-1.45					P.Y. Practical	

TOTAL WORKLOAD-19

1) Prof. M.S. Sahu

TIME	MON	TUE	WED	THUR	FRI	SAT
8.25-9.10			T.Y		S.Y	
9.25-10.10			T.Y PRACT	T.Y	T.Y	S.Y PRACT
10.10-11.00				S.Y		
11.00-11.50		S.Y				
11.50-12.30	S.Y					
12.45-1.45	T.Y	S.Y PRACT	T.Y	T.Y	T.Y	T.Y

TOTAL WORKLOAD-24

2) Prof. V.D. Sahu

TIME	MON	TUE	WED	THUR	FRI	SAT
8.20-9.10	T.Y			S.Y	T.Y	
9.25-10.10	T.Y PRACT	S.Y			S.Y	
10.10-11.00				T.Y		
11.00-11.50			S.Y			
11.50-12.30						T.Y
12.45-1.45				S.Y PRACT		S.Y PRACT

TOTAL WORKLOAD-20

Dr Prof. P.V. Indrak

TIME	MON	TUE	WED	THUR	FRI	SAT
8.30-9.30		F.Y	F.Y	F.Y	F.Y PRACT	F.Y
9.35-10.10						F.Y
10.10-11.00						F.Y
11.30-11.50				F.Y	F.Y	
11.55-12.30				F.Y	F.Y	
12.45-3.45	F.Y PRACT	F.Y				

TOTAL WORKLOAD-19

Dr Prof. N.R. Gajjar

TIME	MON	TUE	WED	THUR	FRI	SAT
8.30-9.30		S.Y		F.Y PRACT		F.Y
9.35-10.10			S.Y			
10.10-11.00	S.Y				S.Y	
11.30-11.50	F.Y					
11.55-12.30			F.Y			
12.45-3.45	F.Y PRACT				F.Y PRACT	

TOTAL WORKLOAD-19

[Signature]
 Head
 Directorate of Computer Science
 Madhav Prasad University, Raipur
 Chhattisgarh (India) - 492 002

बैश्विक की 2018-19

बैश्विक की वर्षा 19 की तृतीया प्रजन
सभी नया प्रथम श्रेणी शामिल करने
निर्माण दि. 2018-19 में करेखा
होगा या नहीं यह कल निर्माण नए प्रमुख
उपचारों की संख्या दिने है. 19. उपचार के
या बैश्विक की नया वर्ष भर नया निर्माण
संयोजित है. केवल केवल सालों है. या
संयोजित उपचार नया उपचार है.

- 1) डॉ. राजेश दिने (उपचार नया शायद)
- 2) डॉ. दिलीप मुख (निर्माण प्रमुख)
- 3) डॉ. डॉ. राजेश मुख
- 4) डॉ. राजेश मुख
- 5) डॉ. राजेश मुख

या संयोजित प्रथम निर्माण प्रमुख डॉ. दिलीप मुख
जीने कल निर्माण नए निर्माण उपचारों की
संयोजित दिने नया संयोजित है. 19. उपचार के
होने मन:पूर्वक सुनिश्चित करें. जतिन
संयोजित सुनिश्चित है.

- 1) निर्माण प्रमुखों की सेवा वर्षों निर्माण योजना
आवृत्ति है.
- 2) उपचार नया प्रमुख निर्माण प्रमुख उपचार प्रमुखों
निर्माण प्रमुखों में उपचार प्रमुखों आवृत्ति
माहिती दिने.
- 3) माहिती है. निर्माण प्रमुखों के निर्माण
के लिए 19 द्वारा करेखा प्रमुखों नया है.
- 4) प्रमुख निर्माण प्रमुखों द्वारा निर्माण प्रमुखों
उपचार प्रमुखों में निर्माण प्रमुखों माहिती दिने.
- 5) निर्माण प्रमुखों निर्माण प्रमुखों निर्माण प्रमुखों
माहिती दिने निर्माण के.
- 6) डॉ. उपचार प्रमुखों डॉ. राजेश दिने नया उपचार प्रमुखों
निर्माण उपचार प्रमुखों माहिती दिने.

PRINCIPAL
Rajesh Prasad Mahapatra
1918, 1919 & 1920
Rajesh Prasad

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM

Prof.G.M.Dhumal Div- A

Prof.P.P.Oswal Div- C

Subject Name -: Financial Accounting.

Prof. H.S.Chaudhari Div- B+D

Prof-P.P.Sandbhor Div E&F and G&H

Month	Unit No	Topic Taught	No of lectures					
			A	B	C	D	E & F	G & H
June-July	1	Piecemeal Distribution of Cash Meaning and Introduction, Surplus Capital Method and Maximum Loss Method	12	12	12	12	12	12
Aug	2	Amalgamation of Partnership Firms:- Meaning and Introduction, Objectives, Methods of accounting	12	12	12	12	12	12
Sept	3	Conversion of a partnership firm into a limited company Meaning and introduction, objectives, effects, methods of calculation of purchase consideration (Net Asset and Net Payment method), accounting procedure in the books of the firm and balance sheet of new company	12	12	12	12	12	12
Oct	4	Computerized Accounting Environment Meaning and Introduction, application of accounting software package, Voucher entry through software package.	12	12	12	12	12	12
Dec	5	Introduction and Relevance of Accounting Standards Overview of Accounting Standards in India-Concept, Need, Scope and Importance. Study of AS- 1, AS- 2, AS- 4 and AS- 9	10	10	10	10	10	10
Jan	6	Royalty Accounts [excluding sub-lease]: Royalty, Minimum Rent, Short Workings, Recoupment of Short Working, Lapse of Short Working. Journal Entries and Ledger Accounts in the Books of Landlord and Lessee.	12	12	12	12	12	12
Feb	7	Hire Purchase and Installment System:[Excluding H. P. Trading]	16	16	16	16	16	16

		Basic Concepts and Distinction, Calculation of Interest and Cash Price, Journal Entries And Ledger Accounts in The Books of Purchaser and Seller.						
Feb- March	8	Departmental Accounts Meaning and Introduction, Methods and Techniques, Allocation of expenses, Inter Departmental Transfers, Provision for unrealized profits	10	10	10	10	10	10
		Total Lectures	96	96	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM

Subject Name -: Business Mathematics And Statistics

Prof. V.M.Wayal Div- A

Prof.P.P.Oswal Div- B

Prof.G.S.Telang Div-C

Prof.S.P.Borhade Div-D

Prof-N.S.Shah Div E&F and G&H

Month	Unit No	Topic	No of lectures					
			A	B	C	D	E&F	G&H
June- July	1	Pre-requisites (For objective type questions only) 1. Natural Numbers and Integers 2. H.C.F and L.C.M. 3. Fractions- addition, subtraction multiplication and division of two or more fractions 4. Laws of Indices 5. Ratio and Percentage 6. Proportion and partnership	10	10	10	10	10	10
Aug	2	Interest 1. Simple Interest 2. Compound interest (nominal and effective rate of interest) 3. Equated Monthly Installments (EMI) (Reducing and flat rate of interest) 4. Examples	08	08	08	08	08	08
Sept	3	Shares and dividends 1. Concept of Shares, face value, market value, Net Asset Value 2. Equity Shares and Preference shares 3. Dividend 4. Bonus Shares 5. Examples	06	06	06	06	06	06
sept	4	Population and Sample 1. Definition and concept of Statistics 2. Scope of Statistics in Economics, Management Science and Industry 3. Concept of Population and Sample 4. Methods of Sampling: Simple Random Sampling and Stratified Random Sampling (Description of procedures only)	08	08	08	08	08	08
Oct	5	Measures of central tendency 1. Variables Qualitative and Quantitative, Raw data, Classification of data, 2. Frequency distribution, cumulative frequency distribution, 3. Histogram (finding mode graphically) Ogive curves and its	16	16	16	16	16	16

		uses. 4. Measures of central tendency: Mean, Median for ungrouped and Grouped data. 5. Examples						
Dec	6	Profit and Loss 1. Concept of Cost Price, Marked Price and Selling Price 2. Trade Discount and Cash Discount 3. Commission and Brokerage 4. Examples	12	12	12	12	12	12
Dec	7	Linear Programming Problems (For two Variables only) 1. Definition and terms in a L.L.P. 2. Formulation of L.L.P. 3. Solution by Graphical Method 4. Examples	12	12	12	12	12	12
Jan	8	Measures of dispersion 1. Concept of Dispersion 2. Measures of Dispersion – Range, Variance and Standard Deviation (S.D.) for Grouped and ungrouped data 3. Measures of relative dispersion- Coefficient of range and coefficient of Variation 4. Examples	08	08	08	08	08	08
Feb	9	Correlation and Regression 1. Concept of Bivariate data, correlation using scatter diagram 2. Karl Pearson's Coefficient correlation for ungrouped data 3. Spearman's Rank correlation coefficient 4. Concept of regression, lines of regression 5. Regression as prediction Model 6. Examples	08	08	08	08	08	08
March	10	Index number 1. Concept of Index Number 2. Construction of Price Index Number 3. Laspeyre's, Paasche's and Fisher's Method 4. Family Budget and Aggregate Expenditure Method 5. Concept of – Cost of Living /Consumer Price Index Number, SENSEX and NIFTY 6. Examples	08	08	08	08	08	08
		Total No of Lecture	96	96	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM

Prof. S.S.Thorat Div- C

Subject Name -: Organizational Skill Development

Prof. S.P.Borhade Div- D

Month	Unit No	Topic	No of lectures	
			C	D
June July	1	Unit 1.Modern Office 1.1 Introduction, Definition, Characteristics, Importance and Functions 1.2 Traditional and Modern Concepts of Office 1.3 Office Location Meaning, Objectives , Principles of Office Location Office Layout – Meaning , Objectives , Principles and Layout ,Modular and Structured Furniture 1.4 Factors of Good Ambience Office Lighting, ventilation. Temperature, Sanitation, Interior Decoration, Noise and Cleanliness.	12	12
July	2	Unit 2.Office Organization 1.1 Definition, Importance of office organization, 1.2 Principles, Steps. 1.3 Types of Organization 1.4 Concept and Functions of Office Administrator.	12	12
Aug	3	Unit 3.Office Manager and Organizational Skills 3.1 Office Manager – Role, duties and responsibilities 3.2 Qualification, Qualities and skills of an office manager 3.3 Time Management –Definition, Need, Principles, advantages and Disadvantages, Time Management techniques. 3.4 Goal Setting-Concept of goal-setting - Importance of goals, SMART(Specific, Measurable, Achievable, Realistic, Time-bound) goals , Do's and Don'ts about goals.	12	12
Sept	4	Unit 4.Office services 4.1 Mail Routine , Courier Services its need and Importance 4.2 Office Forms - objectives, advantages and types of office forms E-forms – advantages. 4.3 Organizational Web Page – Contents, advantages, Internet/Web basedapplications of office activities. 4.4 Office Stationary and Supplies - Importance	12	12

		of stationary, Essentials of a good system of regulating stationary, purchases, storage, Record of stationary,		
Oct	5	Unit 5.Office Records Management 5.1 Introduction - Need - Objectives - Kinds of Records. 5.2 Organization of records department. 5.3 Classifying and Indexing of Records and Files. Principles - Retention and disposition of records. 5.4 Digitalization of Records: Meaning, advantages, process, utility and feasibility.	12	12
Dec	6	Unit 6.Office Communications 6.1 Meaning and Elements of Office Communications, 6.2 Channels of Communication – Internal and External 6.3 Significance and barriers to effective communications 6.4 Recent trends in modern communications such as Fax - E-Mail, Internet, Intranet, www(World Wide Web),Tele conferencing, Video Conferencing as means of Communication	12	12
Jan	7	Unit 7.Public Relations : 7.1 Definition, nature, Scope of PR with customers, investors , employees, government offices and others 7.2 Objectives, importance and functions 7.3 Role of Public Relation Officer in Modern Office 7.4 – Modern methods of Public Relations	12	12
Feb- March	8	Unit 8.Office Automation 8.1 Office Automation – meaning, scope ,feasibility, and advantages 8.2 Different types of modern appliances and machines used in Offices. 8.3 Computerization of office activities - LAN – WAN 8.4 Accounting Packages, Payroll Accounting, Inventory statements, - Vouchers –Invoices - Salary - Maintenance of records and Accounting Books and preparation of financial Report, Leave accounting, Attendance.	12	12
		Total no of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM

Subject Name -: Banking and Finance

Prof. R.S. Shirsi Div- A

Prof. R.M.Dangat Div-B

Prof. H.S.Chaudhari Div- E&F

Prof. P.R.Arude Div- G&H

Month	Unit No	Topic	No of lectures			
			A	B	E&F	G&H
June - July	1	Evolution of banking 1.1 Origin, Meaning and Definition of 'Bank' 1.2 Evolution of banking- Europe, USA & Asia 1.3 Evolution of banking in India. 1.4 Structure of Indian Banking System	06	06	06	06
Aug	2	Functions of Bank 2.1 Primary functions: A) Accepting deposits: Demand deposits: Current and Savings; No Frills Account, Time deposits-Recurring and Fixed deposits, Flexi Deposits (Auto Sweep) B) Granting Loans and Advances- Term Loan, Short term credit, Overdraft, Cash Credit, Purchasing, Discounting of bills, 2.2 Secondary functions: A) Agency Functions- Payment and Collection of Cheques, Bills and Promissory notes, Execution of standing instructions, Acting as a Trustee, Executor. B) General Utility Functions: Safe Custody, Safe deposit vaults, Remittances of funds, Pension Payments, Acting as a dealer in foreign exchange.	14	14	14	14
Sept	3	Procedure for opening and operating of deposit account 3.1 Procedure for Opening of Deposit Account: Know Your Customer- Needs and Norms (KYC Norms), Application form, Introduction, Proof of residence, Specimen signature and Nomination: Their Importance 3.2 Procedure for Operating Deposit Account: Pay-in-slips, Withdrawal slips, Issue of pass book, (Current Savings or Recurring deposits), Issue of Cheque book, Issue of fixed deposit receipt, Premature encashment of fixed deposits and loan against fixed deposit. Recurring deposits: Premature encashment and loan against recurring deposit.	14	14	14	14

		3.3 a) Closure of accounts b) Transfer of accounts to other branches/Banks 3.4 Types of account holders a) Individual account holders- Single or joint, Illiterate, Minor, Married woman, Pardahnashin woman, Non resident accounts b) Institutional account holders- Sole proprietorship, Partnership firm, Joint stock company, Hindu undivided family, Clubs, Associations and Societies and Trusts.				
Oct	4	Methods of Remittances 4.1 Demand drafts, bankers' Cheques and Truncated Cheques 4.2 Mail transfer, Telegraphic transfer, 4.3 Electronic Funds Transfer- RTGS, NEFT and SWIFT	14	14	14	14
Dec	5	Lending principles, Credit Creation and Balance Sheet of a bank 5.1 Safety, Liquidity, Profitability, Diversification of risks 6 Conflict between liquidity and profitability 5.2 Multiple Credit Creation: Process and Limitations 5.3 Balance sheet of a commercial bank.	16	16	16	16
Jan	6	Negotiable Instruments 6.1 Definition, meaning and characteristics of Promissory note, Bill of Exchange and Cheque 6.2 Types of Cheques- Bearer, Order and Crossed 6.3 Types of Crossing- General and Special.	16	16	16	16
Feb	7	Endorsement 7.1 Definition and meaning of endorsement 7.2 Types of endorsement- Blank, Full or Special, Restrictive, Partial, Conditional, Sans Recourse, Facultative.	08	08	08	08
March	8	Technology in Banking 8.1 Need and importance of technology in banking 8.2 E-Banking: ATM, Credit card, Debit card, Tele Banking, Mobile Banking, Net Banking, SWIFT (Society for Worldwide Inter-bank Financial Telecommunication) 8.3 Concept and benefits of Core Banking Solution.	08	08	08	08
		Total no of Lectures	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM
Prof.R.R.Rode Div- A
Prof-R.M.Dangat Div E&F

Subject Name -: Consumer Protection and Business Ethics
Prof. T.B.Vehale Div-B
Prof-S.P.Borhade G&H

Month	Unit No	Topic	No of Lectures			
			A	B	E&F	G&H
June -July	1	Consumer and Consumerism: 1. 1. Consumer: Concept, Meaning, Definition and Features 1. 2. Problems of consumers: Rural and urban, Its Nature and Types 1. 3. Consumerism – Meaning, objectives, Benefits-Consumerism in India 1. 4. Rights, Duties and Responsibilities of Consumers. 1. 5. Consumer Movement-Meaning-Definition-Importance, Scope and Features 1. 6. Development of Consumer Movement in India- Problems and Prospects.	18	18	18	18
Aug	2	Voluntary Consumer Organizations (VCO) and Consumer Protection: 2. 1. VCO: Origin, Importance, Functions and Limitations 2. 2. Challenges before VCOs 2. 3. Role of Voluntary Consumer Organization in Consumer Protection in the area of marketing & Advertisements. 2. 4. Consumer Education-Meaning-Definition-Objectives	06	06	06	06
Sept	3	United Nations Guidelines for Consumer Protection: 3. 1. United Nations and Consumer Protection 3. 2. United Nations Guidelines for Consumer protection, 1985. 3.2.1. Objectives. 3.2.2. General principles. 3.2.3. Guidelines a) Physical Safety b) Promotion and protection of consumers' economic interests c) Standards for the safety and quality of consumer goods and services	06	06	06	06

		d) Education and Information Programme e) Promotion of Sustainable Consumption				
Oct	4	Consumer Protection Act, 1986: 4. 1. Background – Need-Scope and Features 4. 2. Definitions- Consumer-Goods-Services- Complaints, Complainant- Defect in Goods- Deficiency in Services, Unfair Trade Practices, Restricted Trade Practices. 4. 3. Consumer Protection Councils- Composition-Working-and Objectives of: a) District Consumer Protection Council b) State Consumer Protection Council c) National Consumer Protection Council 4. 4. Mechanism for Redressal- Composition and working of- Consumer Disputes Redressal Agencies: a) District Consumer Disputes Redressal Forum b) State Consumer Disputes Redressal Commission c) National Consumer Disputes Redressal Commission 4. 5. Procedure of filing complaints	18	18	18	18
Dec	5	An overview of various Laws for the Protection of Consumers: 5. 1. The Bureau of Indian Standards Act, 1986 (Sections - 1,10,11,14,33) 5. 2. The Competition Act, 2002 (Sections – 1, 3 to 6) 5. 3. Right to Information Act, 2005 (Sections – 1 to 11, 18, 19 and 20) 5. 4. Food Safety and Standards Act, 2006 (Sections– 1to 3, 18 to 28)	18	18	18	18
Jan	6	Protection of Consumer against Standard Form of Contract: 6. 1. Nature and Relevance of Standard Form of Contract 6. 2. Judicial Response to Standard Form of Contract in India and abroad 6. 3. Legislative Reforms	04	04	04	04
Feb	7	Conceptual Framework of Business Ethics: 7. 1. Concept of Ethics: Its Meaning and Nature 7. 2. Definition importance and Scope of Business Ethics 7. 3. Types of Business Ethics; viz:- i. Professional business ethics	08	08	08	08

		ii. Ethics of accounting information iii. Ethics of Production iv. Ethics of intellectual property skill, knowledge etc.				
March	8	Business Ethics in Modern Times: 8. 1. Social Responsibilities of Business 8. 2. Business Ethics and Environmental Issues: Indian and International level - Green initiatives 8. 3. Management and Ethics i. Ethical Issues in Marketing ii. Ethical Issues in Human Resource Management	10	10	10	10
		Total No of Lectures	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - F.Y.B.COM

Subject Name -: Business Environment & Entrepreneurship

Prof. P.P.Sandbhor Div- C

Prof. S.S.Thorat Div- D

Month	Unit No	Topic	No of lectures	
			C	D
June-July	1	Business Environment - Concept- Importance - Inter relationship between environment and entrepreneur, Types of Environment- Natural, Economic - Political - Social - Technical - Cultural - Educational - Legal - Cross-cultural – Geographical etc.	12	12
Aug	2	Environment Issues Protecting the Natural Environment – prevention of pollution and depletion of natural resources; conservation of natural resources, Opportunities in Environment.	12	12
Sept	3	Problems of growth Relevance to entrepreneurship -Unemployment- Poverty-Regional imbalance- Social injustice- Inflation - Parallel Economy- Lack of Technical knowledge and information.	12	12
Oct	4	The Entrepreneur- Evolution of the term entrepreneur- " Competencies of an entrepreneur - Distinction between entrepreneur and manager- Entrepreneur and enterprise -Entrepreneur and Intrapreneur. Entrepreneur and Entrepreneurship.	12	12
Dec	5	Entrepreneurial Behaviour - Comparison between entrepreneurial and non-entrepreneurial Personality-Habits of Entrepreneurs - Dynamics of Motivation	12	12
Jan	6	Entrepreneurship Importance of Entrepreneurship - Economic Development and Industrialization, Entrepreneurship in Economic Theory- Role of Entrepreneurship ~ Entrepreneur as a catalyst.	12	12
Feb	7	National Level Training Organizations in promoting entrepreneurship (1) Entrepreneurship Development Institute of India (EDII) State Level Training Organizations in promoting entrepreneurship (1) MCED	12	12

		(2) DIC (3) Maratha Chamber of Commerce and their role. (4) Local NGO's and their roles.		
March	8	Biographical study of entrepreneurs i) Narayan R. Murthy ii) Cyruas Poonawala iii) Any successful Entrepreneur from your area (Milind Kamble)	12	12
		Total No of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name -: Business Communication

Prof. Dr.H.M.Jare Div- A
Prof. R.R.Rode Div - D

Prof. R.N.Katore Div-B+C

Month	Unit No	Topic	No of lectures			
			A	B	C	D
June- July	1	Introduction of Business Communication: Introduction, Meaning, Definition, Features, Process of Communication, Principles, Importance, Barriers to Communication & Remedies.	12	12	12	12
Aug	2	Methods and Channels of Communication: Methods of Communication-Merits and Demerits & Channels of Communication in the Organization and their Types, Merits & Demerits	10	10	10	10
Sept	3	Soft Skills: Meaning, Definition, Importance of Soft Skills Elements of Soft Skills: 1) Grooming Manners and Etiquettes 2) Effective Speaking 3) Interview Skills 4) Listening 5) Group Discussion 6) Oral Presentation	16	16	16	16
Oct	4	Business Letters: Meaning, Importance, Qualities or Essentials, Physical Appearance, and Layout of Business Letter	10	10	10	10
Dec	5	Types and Drafting of Business Letters: 1) Enquiry Letters 2) Replies to Enquiry Letters 3) Order Letters 4) Credit and Status Enquiries 5) Sales Letters 6) Complaint Letters 7) Collection Letters 8) Circular Letters	16	16	16	16
Jan	6	Job Application Letters: Meaning, Types & Drafting of Job Application Letters, Bio-Data/Resume /Curriculum Vitae	08	08	08	08

Feb	7	Internal and other Correspondence: 1) Office Memo (Memorandums) 2) Office Orders 3) Office Circulars 4) Form Memos or Letters 5) Press Releases	12	12	12	12
March	8	New Technologies in Business Communication: Internet: Email, Websites, Electronic Clearance System, Writing a Blog Social Media Network: Twitter, Facebook, LinkedIn, YouTube, Cellular Phone,WhatsApp,Voice MailShort Messaging ServicesVideo Conferencing Mobile	12	12	12	12
		Total No of Lectures	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name :- Corporate Accounting

Prof. G.M.Dhumal Div- A

Prof. S.P.Borhade Div- B+D

Prof. R.N.Katore Div- C

Month	Unit No	Topic	No of lectures			
			A	B	C	D
June-July	1	Accounting Standards:- Detailed Study of Accounting Standards 5, 6, 10, 14, 21 with Practical Examples numerical case studies, Application nature.	12	12	12	12
Aug	2	Company Final Accounts:- Preparation of Final Accounts- Forms and contents as per Provisions of Companies Act (As Amendment upto the beginning of the relevant academic year) As per Revised Schedule- VI	10	10	10	10
Sept	3	Company Liquidation Accounts:- Meaning of Liquidation- Modes of winding up – (a) Preparation of Liquidator final statement of Account (b) Preparation of Statement of Affairs and Deficiency Account.	16	16	16	16
Oct	4	Computerized Accounting Practices:- Conceptual background - (a) Inventory Accounting (b) Payroll Accounting (c) MIS Reports including Demonstration and Hands Experience.	10	10	10	10
Dec	5	Accounting for Amalgamation, Absorption and External Reconstruction of Companies:- Meaning- Vendor and Purchasing Companies- Purchase Consideration- Accounting entries- and Preparation of Balance Sheet after Amalgamation, Absorption and External Reconstruction.	16	16	16	16
Jan	6	Accounting for Internal Reconstruction:- Meaning- Alteration of Share Capital, Reduction of Share Capital- Accounting Entries and preparation of Balance Sheet After Internal Reconstruction	08	08	08	08
Feb	7	Holding Company Account:- Preparation of consolidated Balance sheet of Holding Company with one subsidiary only. Adjustment of inter company transactions, unrealized profit of stock.	12	12	12	12
March	8	Valuations of Shares:- Concept of Valuation, Need for Valuation, Special Factors affecting Valuation of Shares, Methods of Valuation - (a) Net Assets Method, (b) Yield Basis Method, (c) FairValue Method.	12	12	12	12
		Total No of Lectures	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name -: BUSINESS MANAGEMENT

Dr.H.M.Jare Div- A

Prof. R.R.Rode Div- B+C

Prof. P.P.Sandbhor Div- D

Month	Unit No	Topic	No of lectures			
			A	B	C	D
June July	1	OVERVIEW OF MANAGEMENT Meaning, Definition, Management: Is it Science, Art or profession? Characteristics of Professional Management. The need of Management Study. Process of Management, Level Of Management, Managerial Skills, Challenges before management , Brief Review of Management Thought with reference toFW Taylor & Henry Fayol	12	12	12	12
Aug	2	PLANNING & DECISION MAKING. Planning-Meaning, Definition, Nature, Importance, Forms, Types Of Planning, Steps in Planning, Limitations Of Planning. Forecasting-Meaning & Techniques. Decision Making- Meaning, Types Of Decisions & Steps In Decision Making.	12	12	12	12
Sept	3	ORGANIZATION & STAFFING Meaning, Process & Principles, Departmentalization, Organization Structure, Authority and Responsibility, Delegation of authority, Difficulties in delegation of Authority, Centralization verses Decentralization, Team Work. Staffing-Meaning, Need & Importance of Staffing, Recruitment-Sources and Methods of Recruitment.	12	12	12	12
Oct	4	DIRECTION & COMMUNICATION Direction- Meaning, Elements, Principles, Techniques & importance.. Communication-Meaning, Types, Process of Communication & importance of effective Communication. Barriers to Communication.	12	12	12	12
Dec	5	MOTIVATION Meaning, importance, Theories of motivation, Maslow's Need Hierarchy Theory, Herzberg's Two factors Theory, Douglas Mc Gregor's Theory of X & Y & Ouchi'Theory Z. McClelland's Theory.	12	12	12	12
Jan	6	LEADERSHIP Meaning, Importance, Qualities & Functions of a Leader, Leadership Styles for Effective Management .Contribution of Mahatma Gandhi, Dr. Babasaheb Ambedkar & Pandit Jawaharlal Neharu	12	12	12	12

Feb	7	CO-ORDINATION AND CONTROL Meaning and Need , Techniques of establishing Co-ordination, difficulties in establishing co-ordination, Control-Need, steps in the process of control & Techniques.	12	12	12	12
March	8	RECENT TRENDS IN BUSINESS MANAGEMENT Business Ethics, Corporate Social Responsibility, Corporate Governance, Disaster Management, Management of Change	12	12	12	12

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name -: ELEMENTS OF COMPANY LAW

Prof. G.M.Dhumal Div- A

Prof. S.S.Thorat Div- B+C

Prof. S.A. Veer Div- D

Month	Unit No	Topic	No of lectures			
			A	B	C	D
June July	1	Introduction to the New Act & Concept of Companies: 1.1. Background and Salient Features of the Act of 2013, Overview of the changes introduced by the Act of 2013; 1.2. Nature and types of Companies, Definitions and important features of a Company- Distinction between a company and a partnership - Lifting or Piercing the Corporate Veil 1.3. Types of Companies based on various criteria including one man company, dormant company, sick and small company, associate company. 1.4. Distinction between private and public company (Advantages, Disadvantages and privileges of both the companies) - Conversion of a private company into a public company - Conversion of a public company into a private company.	13	13	13	13
Aug	2	Formation and Incorporation of a Company: 2.1. Stages in the Formation and Incorporation. 2.1.1. Promotion: Meaning of the term 'Promoter' / Promoter Group - Legal Position of Promoters, Pre-incorporation contracts. 2.1.2. Registration/ Incorporation of a company : - Procedure, Documents to be filed with ROC. Certificate of Incorporation- Effects of Certificate of Registration. 2.1.3. Floatation/ Raising of capital. 2.1.4. Commencement of business.	08	08	08	08
Augt- Sept	3	Documents relating to Incorporation and Raising of Capital: 3.1 Memorandum of Association: Meaning and importance- Form and contents- Alteration of memorandum. 3.2 Articles of Association: Meaning- Relationship of and distinction between Memorandum of association and Articles of association- Contents and form of Articles- Alteration of	7	7	7	7

		<p>articles- Doctrine of constructive notice- Doctrine of Indoor Management.</p> <p>3.3 Prospectus: Meaning and Definition- Contents- Abridged form of prospectus- Statutory requirements in relation to prospectus- Deemed prospectus- Shelf prospectus - Statement in lieu of prospectus- Misstatement in a prospectus and Liabilities for Mis-statement.</p>				
Sept-Oct	4	<p>Capital of the Company</p> <p>4.1 Various Modes for Raising of Share Capital including private placement, public issue, rights issue, bonus shares.</p> <p>4.2 ESOS, Sweat Equity Shares, Buy-back of shares.</p> <p>4.3 Allotment of Shares: Meaning- - Statutory provisions for allotment, improper and irregular allotment- Consequences of irregular allotment.</p> <p>4.4 Calls On Shares: Meaning- Requisites of a valid call, Calls in advance</p> <p>4.5 Share Certificates: Meaning, Provisions regarding issue of share certificates - Duplicate Share Certificate.</p> <p>4.6 Share Capital – Meaning, Structure (Kinds) – Concept of Securities – Definition, Nature and Kinds of Shares.</p>	14	14	14	14
Oct	5	<p>Forfeiture, Surrender & Transfer of Shares</p> <p>5.1 Forfeiture and Surrender of Shares: Meaning of forfeiture of shares: - Conditions/Rules of valid forfeiture- Effect of forfeiture- Re-issue of forfeited shares- Annulment of forfeiture-</p> <p>5.2 Surrender of shares</p> <p>5.3 Transfer and transmission of shares - meaning and procedure</p> <p>distinction between transfer and transmission</p> <p>5.4 Nomination of shares</p>	06	06	06	06
Dec	6	<p>E-Governance and E-Filing:</p> <p>6.1 Introduction- Meaning of E-Governance</p> <p>6.2 Advantages of E-Governance,</p> <p>6.3 Basic understanding of MCA Portal</p> <p>6.4 E-filing (Ss. 397 to 402), DIN-Directors Identification Number (Ss. 153-159)</p>	06	06	06	06
Dec	7	<p>Management of Company:</p> <p>7.1 Board of Directors: Definition, Powers, Restrictions, Prohibition on Board. (Ss. 179 to 183)</p> <p>7.2 Director: Meaning and Legal position of directors.</p> <p>7.3 Types of Directors – Types including Executive, Non-Executive, Independent, Additional, Alternate, Interested, Nominee Director, Related Party Transactions (Ss. 188)</p>	10	10	10	10

		7.4 Appointment of Directors, Qualifications and Disqualifications. 7.5 Powers, Duties, Liabilities of Directors, Remedies for Breach of Duties. 7.6 Loans to Directors (S. 185), Remuneration of Directors				
Dec-Jan	8	Key Managerial Personnel (KMP) 8.1 Meaning, Definition and Appointments of Managing Director, Whole Time Director, Manager, Company Secretary Term of office/ Tenure of appointment, Remuneration – 8.2 Distinction between Managing Director, Manager and Whole Time Director - Role (Powers, Functions of above KMP) 8.3 Corporate Social Responsibility (CSR) [U/S 135] – Concept who is Accountable, CSR Committee, Activities under CSR, 8.4 Role of Board of Directors. 8.5 Prevention of Oppression and Mismanagement (Ss. 241 to 246)	10	10	10	10
Jan-Feb	9	Company Meetings: 9.1 Board Meeting – Meaning and Kinds 9.2 Conduct of Meetings - Formalities of valid meeting [Provisions regarding agenda, notice, quorum, proxies, voting, resolutions (procedure and kinds) minutes, filing of resolutions, Virtual Meeting] 9.3 Meeting of Share Holders General Body Meetings, Types of Meetings A. Annual General Meeting (AGM), Ss. 96 to 99 B. Extraordinary General Meeting (EOGM) – S. 100 9.4 Provisions regarding convening, constitution, conducting of General Meetings contained in Ss. 101 to 114	12	12	12	12
March	10	10.1 Revival and Re-habilitation of Sick Companies (S. 253-269) 10.2 Compromises, Arrangements and Amalgamation: Concept and Purposes of Compromises, Arrangements, Amalgamation, Reconstruction – Fine distinction between these terms.: 10.3 Winding –up: Meaning of winding-up, Dissolution of company, Conceptual understanding of winding-up by the Tribunal, Compulsory winding-up, Members’ voluntary winding-up, Creditors’ voluntary winding-up	10	10	10	10
		Total No of Lectures	96	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name -: BUSINESS ADMINISTRATION I

Prof. H. S. Chaudhari Div- C

Prof. R.N.Katore Div- D

Month	Unit No	Topic	No.Of Lectures	
			C	D
June	1	BUSINESS ADMINISTRATION CONCEPTS Business - Definition, Characteristics, scope & Objectives of business- Economic& Social perspectives . Commerce- Meaning, Concept. Trade & Aids to trade- Meaning & Definition of the Terms: Administration, Management and Organization. Functions of Administration	12	12
July	2	FORMS OF BUSINESS ORGANIZATION Sole Proprietorship, Partnership Firm, Limited Liability Partnership, Joint Ventures, Joint Stock Company, Co-operative Society- features, Merits & Limitations. Non Profit joint Stock Company under section 25 of the Companies Act Suitability of a form of organization- Factors determining the suitability of form of Organization	12	12
Aug	3	BUSINESS ENVIRONMENT Meaning, Constituents of business environment-Economic, International, Social, Legal, Cultural, Educational, Political, Technological & Natural. Interaction of business & environmental forces. Social Responsibilities	12	12
Sept	4	BUSINESS PROMOTION Business Unit- Promotion: Concept of promotion, stages in business promotion, Factors affecting location & Size, Present trends in location, size of business unit. Role of Govt in the promotion of SEZ	12	12
Oct	5	LEGAL ASPECTS Compliance of legal requirements in promoting business unit, Licensing, Registration, Filing returns & other documents. Important legal provisions governing promotion & establishment of unit.	12	12
Dec	6	PRODUCTIVITY Meaning, Importance & measurement of productivity. Factors affecting productivity, techniques, Measures to boost productivity, Role of National Productivity Council- Product Quality Control ISO-9000, 14000, Quality Circles	12	12

Jan	7	RECENT TRENDS IN BUSINESS MANAGEMENT Liberalization, Privatization, Globalization -meaning, concept –implications & consequences, SEZ, BPO, KPO and LPO .Public Private Partnership.MKCL	12	12
Feb	8	INDUSTRIAL SICKNESS Meaning, definition, symptoms, causes & Consequences of industrial sickness. Role of Government in prevention of industrial sickness. Role of BIFR.	12	12
		Total no of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - S.Y.B.COM

Subject Name :- Cost and Works Accounting I

Prof. H.M. Jare Div- A

Prof.R.M.Dangat Div-B

Month	Unit No	Topic	No of lectures	
			A	B
June-July	1	Basics Of Cost Accounting 1.1 Concept of Cost, Costing, Cost Accounting and Cost 1.2 Accountancy. 1.3 Limitations of Financial Accounting. 1.4 Origin of Costing. 1.5 Objectives of Costing. 1.6 Advantages & Limitations of Costing. 1.7 Difference Between Financial Accounting and Cost Accounting. Cost Units and Cost Center.	16	16
Aug	2	Elements Of Cost 2.1 Material, Labour and other Expenses. 2.2 Classification of Costs. 2.3 Preparation of Cost Sheet, Quotation, Tenders.	16	16
Sept	3	Material Control 3.1 Need and Essentials of Material Control. 3.2 Functions of Purchase Department. 3.3 Purchase Procedure. 3.4 Purchase Documentation. 3.5 Stock Levels. 3.6 Economic Order Quantity. (EOQ)	16	16
Oct	4	Material Accounting 4.1 Stores Location and Layout. 4.2 Types of Stores Organization. 4.3 Classification and Codification of Material. 4.4 Stores and Material Records – 4.5 Bin Card, & Store Ledger etc. 4.6 Issue of Material and Pricing Methods of Issue of Material:- (a) FIFO. (b) LIFO. (c) Simple Average Methods. (d) Weighted Average Methods. 4.7 Stock valuation, Use of computer in store Accounting.	16	16
Dec	5	Inventory Control 5.1 Stock Taking, Periodic and Perpetual Method. 5.2 ABC Analysis. 5.3 Inventory Ratios.	08	08
Jan	6	Labour Cost, Remuneration And Incentives 6.1 Records & Methods Of Time Keeping and Time Booking Study of New Methods.	12	12

		6.2 Methods Of Remuneration- Tme Rate System, Piece Rate system, Taylor’s Differential Piece rate System. 6.3 Incentive Plan- Halsay Premium Plan, Rowan Premium Plan. Group Bonus Schemes.		
Feb	7	Other Aspects Of Labour 7.1Labour Turnover. 7.2 Job Analysis & Job Evaluation Key. 7.3 Merit Rating.	10	10
March	8	Direct Cost 8.1 Concept and Illustrations.	02	02
		Total No of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

**Subject Name -: Business Regulatory Framework
(M. Law)**

Prof. R.R.Rode Div- A

Prof. P.P.Sandbhor Div- B

Prof. R.M.Dangat Div- C

Month	Unit No	Topic	No of lectures		
			A	B	C
June-July	1	Law of Contract - General Principles. (Indian Contract Act, 1872) Definition, Concept and kinds of contract Offer and Acceptance. Capacity of parties. Consideration. Consent and free consent. Legality of object and consideration. Void Agreements. Discharge of contract. Breach of contract and remedies (Including damages, meaning, kinds and rules for ascertaining damages)	20	20	20
Aug	2	Law of Partnerships: 2.1. Indian Partnership Act 1932: Partnership; Definition and Characteristics, Types of Partners, Rights, Duties and Liabilities of Partners, Dissolution of Partnership. 2.2. Limited Liability Partnership Act 2008: Limited Liability Partnership (LLP); Concept, Nature and Advantages, Difference between LLP and Partnership Firm, Difference between LLP and company, Partners and designated partners, Incorporation of LLP, Partners and their relations, Liability of LLP and Partners (Section 27). Financial Disclosure by LLP, Contributions (Section 32), Assignments and Transfer of Partnership Rights (Section 42) Conversion to LLP (Section 55), Winding-up and dissolution (Section 63 & 64)	04	04	04
Sept	3	Sale of Goods.(Sale of Goods Act,1930) Contract of sale-Concept and Essentials. Sale and agreement to sale. Goods-Concept and kinds. Conditions and warranties. (Definition, Distinction, implied conditions and warranties)Transfer by non-owners. Rights of Unpaid Seller and Remedial Measures.	05	05	05
Oct	4	E-Contracts (E-Transactions/E-Commerce.): Significance of E-Transactions /E-Commerce. Nature. Formation.	14	14	14

		<p>Legality. Recognition. (Chapter 4.Sec.11-13 of I T Act,2000 relating to attribution, acknowledgement, dispatch of E-Records) Digital Signatures –Meaning & functions, Digital Signature certificates [Sections 35-39] Legal issues involved in E-Contracts.</p>			
Dec	5	<p>The Consumer Protection Act, 1986 Salient features of the C.P. Act. Definitions-Consumer, Complainant, Services, Defect & Deficiency, Complainant, unfair trade practice, restrictive trade practice. Consumer Protection Councils. Procedure to file complaint & Procedure to deal with complaint &Reliefs available to consumer.(Sec.12 to14) Consumer Disputes Redressal Agencies. (Composition, Jurisdiction, Powers and Functions.)</p>	12	12	12
Jan	6	<p>Intellectual Property Rights : (IPRs) WIPO: Brief summary of objectives, organs, programmes& activities of WIPO.TRIPS: As an agreement to protect IPR-Objectives & categories of IPR covered by TRIPS. Definition and conceptual understanding of following IPRs under the relevant Indian current statutes. Patent: Definition & concept, Rights & obligation of Patentee, its term. Copyright: Characteristics & subject matter of copyright, Author & his Rights, term. Trademark: Characteristics, functions, illustrations, various marks, term, internet domain name- Rights of trademark holder. Design: Importance, characteristics, Rights of design holder. Geographical Indications, Confidential Information & Trade Secrets, Traditional knowledge—Meaning & scope of these IPRs.</p>	16	16	16
Feb	7	<p>Negotiable Instruments Act, 1881: Concept of Negotiable Instruments: Characteristics, Meaning Important relevant definitions under the Act Definitions, Essentials of promissory note, bill of exchange and cheque. Distinction between these instruments. Crossing of cheques – It's meaning and types. Holder and holder in due course, Privileges of holder in due course. Negotiation, endorsement, kinds of endorsement. Liabilities of parties to negotiable instruments. Dishonour of N. I., kinds, law relating to notice of dishonour. Dishonour of cheques.</p>	14	14	14
March	8	<p>Arbitration & Conciliation: Concept of Arbitration & Conciliation. Definition & Essentials of Arbitration Agreement. Power and Duties of Arbitration. Conciliation proceeding. (Provisions of Arbitration & Conciliation Act,1996 in nutshell to be covered.)</p>	06	06	06
		Total No of Lectures	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM
Prof. H. M. Jare Div- A
Prof.R.N.Katore Div-C

Subject Name -: Advanced Accounting
Prof.R.M.Dangat Div-B

Month	Unit No	Topic	No of lectures		
			A	B	C
June	1	Accounting Standards & Financial Reporting (Introduction to IFRS-Fair Value Accounting):- Brief Review of Indian Accounting Standard :- AS- 3, AS-7, AS-12, AS-15 AS-17 to AS-25 simple practical examples of application nature.	12	12	12
July	2	Final Accounts of Banking Companies :- * Introduction of Banking Company - Legal Provisions - Non Performing Assets (NPA) - Reserve Fund - Acceptance, Endorsements & Other Obligations - Bills for Collection - Rebate on Bills Discounted - Provision for Bad and Doubtful Debts - Preparation of Final Accounts in vertical form as per Banking Regulation Act 1949. * Introduction to Core Banking System.	12	12	12
Aug	3	Insurance Claim Accounts :- A. Claim for Loss of Stock - Introduction - Procedure for Calculation - Average Clause - Treatment of abnormal items of goods - Under & Overvaluation of Stock. B. Claim for Loss of Profit - Introduction - Indemnity under policy - Some important terms - Procedure for ascertaining claims. C. Claim for Loss of Fixed Assets - Introduction - Some important terms - Procedure for ascertaining claims.	12	12	12
Sept	4	Final Accounts of Co-operative Societies :- a. Credit Co-operative Societies :- b. Consumer Co-operative Societies :- Meaning - Allocation of Profit as per Maharashtra State Co-operative Societies Act. Preparation of Final Accounts of Credit Co-operative Societies and Consumer Co-operative Societies.	12	12	12
Oct	5	Computerized accounting practices:- A. VAT & VAT Report B. Service Tax C. Central Value Added Tax D. Income Tax - Tax Deducted at Source (TDS) Including entries with the help of Accounting Software.	12	12	12

		(Demonstration and Hands Experience.)			
Dec	6	Branch Accounts :- Stock and Debtors System :- Introduction - Types of Branches - Goods supplied at Cost & Invoice Price.	12	12	12
Jan	7	Single Entry System :- Conversion of Single Entry into Double Entry :- Introduction - Preparation of Cash Book - Total Debtor Account - Total Creditor Account - Final Accounts.	12	12	12
Feb	8	Analysis of Financial Statements :- Ratio Analysis :- Meaning - Objectives - Nature of Ratio analysis - Problems on Ratio Analysis restricted to the following Ratio only - *Gross Profit Ratio *Net Profit Ratio * Operating Ratio * Stock Turnover Ratio * Debtor Turnover Ratio * Current Ratio * Liquid Ratio * Debt to Equity Ratio.	12	12	12
		Total no of Lectures	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

Subject Name -: Auditing & Taxation

Prof.G.M.Dhumal Div-: A

Prof. P. P. Oswal Div-:B+C

Month	Unit No	Topic	No of lectures		
			A	B	C
July	1	Introduction to Principles of Auditing and Audit Process. Definition, Nature-objects-Advantages of Auditing-Types of errors and frauds Various Classes of Audit. Audit programme, Audit Note Book, Working Papers, Internal Control-Internal Check-Internal Audit	12	12	12
Aug	2	Checking, Vouching and Audit Report Test checking-Vouching of Cash Book-Verification and Valuation of Assets and Liabilities. Qualified and Clean Audit Report-Audit Certificate-Difference between Audit Report and Audit Certificate. Auditing and Assurance Standards. (AAS-1,2,3,4,5,28,29)	12	12	12
Sept	3	Company Auditor Qualification, Disqualifications, Appointment, Removal, Rights, Duties and liabilities. Tax Audit Definition of Accountant-Scope of Auditor's Role under Income Tax Act Compulsory Tax Audit- Certification for Claiming exemptions-	08	08	08

Oct	4	<p>Selective Tax Audit Tax Consultancy and Representation- Proforma of Computerized Systems.</p> <p>Audit of Computerized Systems</p> <p>Auditing in an EDP environment-planning an audit in a computer Environment - problems encountered in an EDP environment- General EDP Control – EDP Application Control- System Development- Data transfer- Audit practice in relation to computerized systems-Computer Assisted Audit Techniques (Factors and Preparation of CAAT)</p>	16	16	16
Dec	5	<p>Important Concepts and Definitions under Income Tax Act-1961.</p> <p>Income, Person, Assessee, Assessment year, Pervious year, Agricultural Income, Exempted Income, Residential Status of an Assessee, PAN, TAN</p>	08	08	08
Jan	6	<p>Computation of Taxable Income under the different Heads of Income</p> <p>a. Income from Salary – Meaning of salary, Salient features of salary Allowances and tax Liability- Perquisites and their Valuation- Deductions from salary. (Theory and Problems)</p> <p>b. Income from House Property Basis of Chargeability Annual Value Self occupied and let out property Deductions allowed (Theory and Problems)</p> <p>c. Profits and Gains of Business and Professions Definitions, Deductions expressly allowed and disallowed (Theory And Problems)</p> <p>d. Capital Gains Chargeability-definitions-Cost of Improvement, Short term and long term Capital gains (Theory only)</p> <p>e. Income from other sources- Chargeability - deductions - Amounts not deductible.(Theory only)</p>	08	08	08
			04	04	04
			08	08	08
			04	04	04
Feb	7	<p>Computation of Total Taxable Income of an Individual</p> <p>Gross total Income-deductions u/s-80C, 80ccc to 80 U – Income Tax calculation- (Rates applicable for respective Assessment year)</p>	08	08	08

		Education cess			
March	8	Miscellaneous Tax deducted at source-Return of Income- Advance payment of Tax methods of payment of tax-Forms of Return-Refund of Tax. (Theory)	04	04	04
March	9	Income Tax Authorities Structure, Functions and powers of various Income Tax Authorities. (Administrative and Judicial), Central Board of Direct Taxes	04	04	04
		Total No of Lectures	96	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

Subject Name -: Business Administration

Special Paper II

Prof. S.A.Veer Div- B

Prof. T.B.Vehale Div:- C

Month	Unit No	Topic	No of lectures	
			B	C
June- July	1	Human Resource function 1.1 Meaning, Objectives of Human Resource Function, Difference between H.R.M. and H.R.D. 1.2 Organization, Scope and functions of Human Resource Department in Modern Business. 1.3 Human Resource Planning – Nature and Scope, Job analysis - Job description - Job specification. 1.4 Emerging Concept of H.R.D. – Quality Circles – Kaizen - Voluntary Retirement Schemes.	14	14
Aug	2	Recruitment and Training 2.1 Methods or sources of Recruitment of manpower, Role of Recruitment Agencies- Selection Process. 2.2 Types of Interviews- Interview Techniques. 2.3 Objectives and importance of Training and Development. 2.4 Types and Methods of Training Programmes.	10	10
Sept	3	Employee Career and Succession planning 3.1 Aims and objectives of career planning. 3.2 Career Planning Process – Career Planning Structure. 3.3 Succession Planning - Meaning Need and importance. 3.4 Types of Career Opportunities A) Public Sector :- State and Local Government level - Personnel officer, Purchasing officer, secretary, Director of Administration Accountant etc. B) Private sector :-Marketing and Sales, Production and Material Management, Financial sector, Management as a profession, Insurance Industry, Accounting and Management Information System.	12	12
Oct	4	Performance Appraisal Management. 4.1 Concept and Importance. 4.2 Performance Appraisal Process. 4.3 Methods and Techniques. 4.4 Merits and limitations of performance appraisal.	12	12
Dec	5	Introduction 1.1 Meaning and scope of Marketing.	10	10

		1.2 Objectives of Marketing. 1.3 Classification of marketing. 1.4 Functions of Marketing.		
Jan	6	Marketing Mix 2.1 Meaning and Importance of Product, Product mix, product life cycle. New product development- Types of new product, Branding, Packaging, Labeling. 2.2 Price – Meaning, Factors affecting Pricing Decisions, Methods of Pricing. 2.3 Place – Functions of distribution channels, Types of distribution channels, Impact of technology on Distribution. 2.4 Promotion – Meaning of sales promotion, Importance, Methods and New techniques of sales promotion.	13	13
Feb	7	Advertising 3.1 Advertising- Meaning, Scope, Importance, Role of advertising in modern business, Criticism on Advertising practices. 3.2 Advertising media – Different medias of advertising, Selection of advertising media. 3.3 Ethics in advertising- Ethics and appeals in Advertising, Advertising Standards Council of India. 3.4 Future of advertising – Advertising in depression and crisis, Employment opportunities in advertising field.	13	13
March	8	Modern Marketing Trends 4.1 Global marketing – Meaning, Scope, Importance, International marketing Challenges and Problems. 4.2 Marketing Research- Meaning, Scope and Methods of Marketing research. 4.3 Retailing- Meaning, New Trends in Marketing, Direct Marketing, Malls, Franchising. 4.4 Recent Trends in Marketing i) E-Marketing ii) Telemarketing iii) Internet Marketing iv) M-Marketing.	12	12
		Total No of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

Subject Name -: Business Administration
Special Paper III

Prof. H.S.Chaudhari Div- B
Prof. P.R.Arude Div-: C

Month	Unit No	Topic	No of lectures	
			B	C
June- July	1	Finance -: 1.1 Money and Finance, Need, Nature and Importance of Finance. 1.2 Finance Functions, Objectives of Financial Management, Functions of Finance Manager. 1.3 Financial need of a modern business organization.	10	10
Aug	2	Financial Planning -: 2.1 Meaning, Nature and characteristics of financial planning. Scope, Importance, Advantages, Limitations, of Financial Planning . 2.2 Steps in financial planning. 2.3 Methods of estimating financial requirements.	12	12
Sept	3	Capitalization and Capital Structure -: 3.1 Capitalization – Concept, Factors governing capitalization, over and under capitalization - Causes and effects, Fair Capitalization. 3.2 Capital Structure- Meaning, Concept and Principles of capital structure, Factors influencing the pattern of capital structure. 3.3 Trading on equity- Concepts and effects.	12	12
Oct	4	Management of Capital -: 4.1 Types of capital- Fixed capital and working capital, owned and borrowed capital, Short and Long term Capital. 4.2 Need, Importance, Factors governing fixed and working capital requirement. 4.3 Sources of capital - Shares, Debentures, Public Deposits, Ploughing back of profits, Loans from Bank and Financial Institutions, Trade creditors, Installment credit etc	14	14
Dec	5	Production management Functions -: 1.1 Meaning, Definition, Functions of Production Management, Responsibilities of Production manager . 1.2 Production Planning - Objectives, Importance, levels of planning. 1.3 Routing & Scheduling - Meaning, Route Sheets, Scheduling, Master and	14	14

		sequential scheduling, scheduling devices. 1.4 Production control- Definition and meaning, Necessity, objectives, factors and techniques of production control		
Jan	6	Plant Location and Plant Layout 2.1 Introduction, importance, factors responsible for plant location. 2.2 Plant Layout- Meaning, Definition, Importance of good layout, factors relevant for choice of layout, Line, Process and Product layout. 2.3 Plant Layout - Advantages, disadvantages and techniques.	10	10
Feb	7	Inventory management 3.1 Inventory management -Introduction, methods, and Norms. 3.2 EOQ, Use of Computers in Inventory Management, 3.3 Material Requisition Planning (MRP) , Just In Time (JIT),ABC Analysis.	10	10
March	8	Material Handling and supply chain management 4.1 Meaning, function of material handling, principles of material handling. 4.2 Common material handling devices fork lift truck, platform truck, straddle carrier, chain hoist, roller and belt conveyor, bridge crane, crawler crane. 4.3 Supply chain management- Theory, Principles, Implications, Factors affecting supply chain management.	14	14
		Total No of Lectures	96	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

**Subject Name -: Cost and Works Accounting
Paper II**

Special

Prof. S.S.Thorat Div- A

Month	Unit No	Topic	No of lectures
June	1	Overheads: 1.1.Meaning and definition of overheads. 1.2.Classification of overheads	06
July	2	Accounting of Overheads (Part-I) 2.1 Collection and Allocation of overheads. 2.2 Apportionment and Re-apportionment of overheads	14
Aug	3	Accounting of Overheads (Part-II) 3.1 Absorption - Meaning ,Methods of Overhead Absorption 3.4 Under and Over Absorption of overheads- Meaning, Reasons and Accounting treatment	20
Sept	4	Activity Based Costing 4.1 Definitions-Stages in Activity Based Costing 4.2 Purpose and Benefits of Activity Based Costing 4.3 Cost Drivers 4.4 Problems on Activity Based Costing [Simple Problems only]	08
Oct	5	Methods of Costing: 5.1 Introduction to Methods of Costing. 5.2 Job Costing- Meaning, Features, Advantages and Limitations	08
Dec	6	Contract Costing: 6.1 Meaning and Features of Contract Costing 6.2 Work Certified and Uncertified, Escalation clause, Cost Plus contract, work-in- progress 6.3 Profit on incomplete contract	16
Jan	7	Process Costing 7.1 Meaning and features of process costing 7.2 Preparation of process accounts including normal and abnormal loss/gain 7.3 Joint Products and By Products [Theory Only]	14
Feb	8	Service Costing: 8.1 Meaning, Features and Applications. 8.2 Cost Unit-Simple and composite 8.3 Cost Sheet for Motor transport service 8.4 Cost Statement for Hospital and Hotel Organization	10
		Total No of Lectures	96

Teaching Plan
Academic Year 2017-18
1st Term and 2nd Term

Class: - T.Y.B.COM

**Subject Name :- Cost and Works Accounting Special
Paper III**

Prof. G.M.Dhumal Div- A

Month	Unit No	Topic	No of lectures
June- July	1	Marginal Costing: 1.1 Meaning and concepts- Fixed cost, Variable costs, Contribution, Profit-volume Ratio, Break-Even Point & Margin of Safety. 1.2 Cost-Profit-Volume Analysis- Assumptions and limitations of cost volume analysis 1.3 Application of Marginal Costing Technique:- Make or buy decision, Acceptance of export order & Limiting factors.	18
Aug	2	Budgetary Control: 2.1 Definition and Meaning of Budget & Budgetary control 2.2 Objectives of Budgetary control 2.3 Procedure of Budgetary control 2.4 Essentials of Budgetary control 2.5 Advantages and Limitations of Budgetary control 2.6 Types of Budgets.	12
Sept	3	Uniform costing and Inter-firm Comparison 3.1 Meaning and ,objectives 3.2 Advantages and disadvantages.	08
Oct	4	Introduction to management information system in Costing 4.1 Meaning , objectives and Advantages 4.2 Procedure of MIS	10
Dec	5	Standard Costing 5.1 Definition and meaning of standard cost & standard Costing 5.2 Types of standards, setting up of Material & Labour Standards 5.3 Difference between Standard Costing & Budgetary Control. 5.4 Advantages and Limitations of standard costing 5.5 Variance Analysis & its Significance 5.6. 1 Meaning, Types and Causes of Material & Labour variances. 5.6. 2 Problems on Material & Labour variances.	16
Jan	6	Farm Costing 6.1 Meaning and Features of Farm Costing 6.2 Advantages & Limitations of Farm Costing 6.3 Practical Problems	10
Feb	7	Cost Accounting Record Rules & Cost Audit: 7.1 Introduction to cost accounting record u/s 148 of the companies Act 2013 7.2 Cost records and Verification of Cost Records	12

		7.3 Cost auditor – Appointment- Rights and duties	
March	8	Cost Audit (Legal Provisions): 8.1 Cost Audit - Meaning, Scope, objectives & advantages of Cost Audit. 8.2 Cost Audit Report and Annexure to cost Audit Report. 8. 3 Introduction to Cost Accounting Standards issued by Institute of Cost and Management of India . 8.4 Generally accepted Cost Accounting principles.	10
		Total No of Lectures	96

Prof. V.D.Kulkarni,
Dept of Physics
HutatmaRajguruMahavidyalaya,
Rajgurunagar (Pune)

Teaching Plan (Sem-I)

(2017-18)

T.Y.B.Sc. PH 333 Classical Mechanics

Sr. No.	Topics	Dates
01	1. Mechanics of system of particles Introduction –Newton's laws	01/07/2017 To 15/07/2017
02	Applications of Newton's laws of motionProjectile motion in various medium,	
03	Rocket motion,	
04	Motion of a charged particle in constant electric, magnetic and electromagnetic field.	
05	General features of motion, equation of orbit, Deduction of Kepler's laws of planetary motion, Orbits of artificial satellite, Problems.	
06	System of particles, Centre of mass, Conservation of linear momentum, angular momentum,	
07	Energy of system of particles (statements only) Problems	
18	4. Langrangian and Hamiltonian formulation 1 Limitations of Newtonian formulation	16/07/2017 To 30/07/2017
19	Types of constraints, degrees of freedom, generalized coordinates, configuration space	
20	D' Alembert's principle of virtual work	
21	Langrangian equation from D' Alembert's principle, cyclic coordinates,problems	
22	Phase space, Hamiltonian's equations State of Systems, Ensembles	

Prof. V.D.Kulkarni

Teaching Plan (Sem-I)

(2017-18)

T.Y.B.Sc. PH335: Computational Physics

Sr. No.	Topics	Month
01	1. Concepts of programming: Definition and Properties of algorithms, Algorithm development,	1/08/2017 To 08/08/2017
02	Algorithm development, Flow charts- symbols and simple flowcharts	
03	Flow charts and Algorithms for Kinematic equations, Free fall, Equation of state, Factorial of a number.	
04	Types of programming language: Lower, middle and higher level languages.	
05	1. C Programming Structure of C program, Character set, key words,	09/08/2017 To 25/08/2017
06	Constants and variables, Variable names,	
07	Data types and their declarations, Symbolic Constants.	
08	Input/output functions: scanf (), printf (), getchar (), putchar (), getch (), gets (), puts ().	
09	Operators and Expressions: Arithmetic Operators, Relational Operators, Logical Operators,	
10	Assignment Operators, Conditional Operator. Formatted input/output	
11	Control statements: If, if else, while, do while for loop, nested control structures	
12	(nested if, nested loops), break, continue, switch- case statement, goto statement.	
13	Use of Library functions: e.g. mathematical, trigonometric, graphics.	
14	3. Arrays and Pointers in C Arrays: 1-D, 2-D and String	

		25/08/2017 To 30/08/2017
15	Examples: Arranging numbers in descending and ascending order,	
16	Sum of matrices, multiplication of matrices.	
17	Concept of Pointers	1/09/2017 To 7/09/2017
18	4. User Defined Function in C User defined functions: Definitions and declaration of function, function prototype.	
19	Passing arguments (Call by value, Call by reference).	
20	Storage Classes: Auto, External, Static, Register variables.	
21	5. Graphics in C: Some simple graphic commands	8/09/2017 To 15/09/2017
	- Line, Circle, Arc, Ellipse, Bar., Problems	
22	6. Computational Physics: Errors in Computation: Inherent errors in storing numbers due to finite bit representation to use in Computer, Truncation error, round off errors	16/09/2017 to till term end (05/10/2017)
23	Iterative methods: Discussion of algorithm and flowcharts and writing C programs for finding	
24	single root of equation using bi-section method, Newton Raphson method.	
25	Discussion of algorithm and flowcharts and writing C program for trapezoidal rule and Simpson's 1/3rd rule	

Prof. V.D.Kulkarni,
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Teaching Plan (2017-18)

T.Y.B.Sc. (Sem-II)

Thermodynamics and Statistical Physics (PH-343)

Sr. No.	Topics	Dates
01	Ch-1 - Kinetic Theory of gases	

	Assumptions of Kinetic Theory of gases, Mean free path	23/11/2017
02	Transport Phenomena, Viscosity	To
03	Thermal conductivity and diffusion	12/12/17
04	Problems	
05	Ch-2- Maxwell's relations and applications	
	Thermodynamic functions	13/12/17
06	Enthalpy, Entropy, Internal Energy, Helmholtz Functions	
07	Maxwell's relations	To
08	First and Second TdS equations	5/1/18
09	Joule – Thomson's effect, Problems	
10	Ch-3- Elementary Concepts of Statistics	
	Probability distributions, functions	
11	Random Walk Problem and Binomial distribution	10/1/18
12	Simple Random Problem	To
13	Probability distribution for large N	24/1/18
14	Gaussian Probability distribution and Problems	
15	Ch-4- Statistical distribution of system of particles	
	State of Systems, Ensembles	25/1/18
16	Basic Postulates, Probability Calculations	To
17	Behavior of density of states	24/2/18
18	Thermal. Mechanical Interactions, Problems	
Sr. No.	Topics	Dates
19	Ch-5- Statistical Ensembles	
	Micro canonical Ensembles, Canonical Ensembles	26/2/18
20	Applications of Canonical Ensembles	To
21	Molecules in ideal gas, Mean Values in Canonical Ensembles, Problems	7/3/18
22	Ch-6-Quantum States	
	Quantum distribution function	8/3/18
23	Maxwell – Boltzman Statistics, Bose – Einstein Statistics	To
		13/3/18

24	Fermi – Dirac Statistics, Comparisons, Problems	
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- 1) T.Y.B.Sc.:- Sixteen (16) Practical of **Three** batches will be complete in Academic Year 2017-2018.
- 2) Projects of T.Y.B.Sc Students.:- Projects of Five (5) Students of T.Y.B.Sc. will be complete in Academic Year 2017-2018.

Dr. V.D.Kulkarni

Teaching Plan

T.Y.B.Sc. Physics (Sem IV)

Year: 2017-2018

PH-342: Quantum Mechanics

Teacher: A.B.Kanawade

Chapter No.	Contents	Month	Remarks
1	Origin of Quantum Mechanics: (10 L) 1. Historical Background a) Review of Black body radiation b) Review of photoelectric effects. 2. Wave particle duality 3. Matter waves - De Broglie hypothesis. - Davisson and Germer experiment. 4. Concept of wave packet, phase velocity, group velocity and relation between them 5. Heisenberg's uncertainty principle with thought experiment. - Electron diffraction experiment, different forms of uncertainty. Problems	Nov/Dec 2017	
2	The Schrodinger equation: (15 L) 1. Wave function and its physical interpretation. 2. Schrodinger time dependent equation. 3. Schrodinger time independent equation.(Steady state equation). 4. Requirements of wave function. 5. Probability current density, equation of continuity, and its physical significance. 6. Definition of an operator in Quantum mechanics. - Eigen function and Eigen values. 7. Expectation value – Ehrenfest's theorem, Problems	Dec 2017	
3	Applications of Schrodinger Steady state equation: (12 L) 1. Free particle. 2. Particle in infinitely deep potential well (one - dimension). 3. Particle in three dimension rigid box. 4. Step potential. 5. Potential barrier. (Qualitative discussion). Barrier penetration and tunneling effect.	Jan 2018	
4	Spherically symmetric potentials: (06 L) 1. Schrodinger's equation in spherical polar co-ordinate system. 2. Rigid rotator (free and fixed axis). 3. Hydrogen atom: Qualitative discussion on the radial and angular parts of the bound state energy, energy state functions, Quantum numbers n, l, m_l, m_s – Degeneracy. Problems	Jan/Feb 2018	

5	Operators in Quantum Mechanics: (05 L) <ol style="list-style-type: none"> 1. Hermitian operator. 2. Position, Momentum operator, angular momentum operator, and total energy operator (Hamiltonian). 3. Commutator brackets- Simultaneous Eigen functions. 4. Commutator algebra. 5. Commutator brackets using position, momentum and angular momentum operator. 6. Raising and lowering angular momentum operator. 7. Concept of parity, parity operator and its Eigen values. Problems	Feb/Mar 2018	
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K.T.S. P. Mandals'

HUTATMA RAJGURU MAHAVIDYALAYA, Rajgurunagar.

Academic Calendar 2017-18

F.Y.B.Sc

Subject –Physics II

Date	Topic Taken	Period required
July 2017	Physics of Atoms 1. The concept of atom (Atomic Models: Thompson and Rutherford) 2. Atomic Spectra 3. Bohr Theory 4. Hydrogen atom Spectra 5. Frank Hertz experiment 6. The LASER Absorption, Spontaneous Emission, and Stimulated Emission, Population Inversion and Laser Action, Applications of Lasers	12 Lectures
August 2017	Physics of Molecules 1. Bonding Mechanisms: A Survey i. Ionic Bonds ii. Covalent Bonds iii. Van der Waals Bonds iv. The Hydrogen Bond v. Metallic Bond 2. Variation of potential energy with inter-atomic distance 3. Concept of Rotational and vibrational energy levels of diatomic molecule	10 Lectures
September 2017	Electromagnetic Waves 1. Historical Perspective of Electromagnetic Waves 2. Production of electromagnetic waves : Hertz experiment 3. Electromagnetic spectrum 4. Planck hypothesis of photons (Concept only) 5. Sources of electromagnetic waves : Radio waves, Microwaves, Infrared, Visible light, Ultraviolet, X-rays, Gamma rays 6. Applications i. microwave oven ii. RADAR iii. Pyro electric thermometer	14 Lectures

	iv. X-ray radiography and CT Scan v. Solar cell	
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Prof V.B Deshmukh

K.T.SP.Mandals'

HUTATMA RAJGURU MAHAVIDYALAYA Rajgurunagar.

Academic Calendar 2017-18

S.Y.B.Sc

Subject –Physics Semester II (Paper I)

PH221: OSCILLATIONS, WAVES AND SOUND

Date	Topic Taken	Period required
Nov/Dec 2017	Undamped Free Oscillations 1 Different types of equilibria (stable, unstable, and neutral equilibrium) 2 Potential well and periodic oscillations, Approximation of a general potential well $V(x)$ to a parabola for small oscillations 3 Definition of linear and angular S.H.M. .4 Differential equation of S.H.M. and its solution (exponential form) .5 Composition of two perpendicular linear S.H.Ms. for frequencies 1:1 and 1:2 6 Lissajous's figures and its uses, Applications (mechanical, electrical and optical) 7 Problems.	9 Lectures
Dec 2017	Damped Oscillations 1 Introduction.2 Differential equation of damped harmonic oscillator and its solution, discussion of different cases. 3 Logarithmic decrement.4 Energy equation of damped oscillations 5 Power dissipation 6 Quality factor 7 Application: LCR series circuit 8 Problems.	9 Lectures
Jan 2018	Forced Oscillations 1 Forced oscillation with one degree of freedom 2 Differential equation of forced oscillation and its solution Amplitude of forced oscillation 3 Resonance and its examples: mechanical (Barton's pendulum), optical	10 Lectures

	(sodium vapour lamp), 4 Velocity and Amplitude resonance 5 Sharpness of resonance 6 Energy of forced oscillations 7 Power dissipation 8 Quality factor and Bandwidth 9 Application of forced oscillations 10 Equation of coupled oscillations, 11 Problems.	
Jan/Feb 2018	Wave Motion 1 Differential equations of wave motion in continuous media 2 Equations for longitudinal waves and it's solution (one dimension only) 3 Equation for transverse waves and its solution (one dimension only) 4 Energy density and intensity of a wave 5 Discussion of seismic waves 6 Problems.	8 Lectures
Feb 2018	Doppler Effect 1 Explanation of Doppler effect in sound 2 Expression for apparent frequency in different cases. 3 Asymmetric nature of Doppler effect in sound 4 Doppler effect in light, symmetric nature of Doppler effect in light. 5 Applications: Red shift, Violet shift, Radar, 6 Problems.	6 Lectures
Mar 2018	Sound 1 Definition of sound intensity, loudness, pitch, quality and timber 2 Acoustic intensity level measurement 3 Acoustic pressure and it's measurement 4 Reverberation time and Reverberation of a hall 5 Sabine's formula (without derivation) 6 Stroboscope 7 Problems	6 Lectures

Prof V.B Deshmukh

K. T. S. P. Mandals'
HUTATMA RAJGURU MAHAVIDYALAYA Rajgurunagar
Academic Calendar 2017-18
T. Y. B. Sc. Subject –Physics II

PH-334: Atomic and Molecular Physics

Date	Topic Taken	Period required
July 2017	Atomic structure 1. Rutherford model of atom 2. Electron orbits 3. Bohr atom 4. Energy levels and spectra (1 to 4 Revision) 5. Vector atom model (Concepts of space and quantization and electron spin) 6. Atomic excitation and atomic spectra	6 Lectures
July 2017	One and two valence electron systems 1. Pauli Excluding principle and electron configuration, quantum states, Spectral notations of quantum states. 2. Spin-Orbit Interaction (Single valence electron atom), Energy levels of Na atom, selection rules, spectra of sodium atom, sodium Doublet. 3. Spectral terms of two electron atoms, terms for equivalent electrons, L-S and JJ coupling schemes. 4. Singlet-Triplet separation for interaction energy of L-S coupling. Lande Interval rule, spectra of Helium atom	14 Lectures
August 2017	Zeeman Effect 1. Early discoveries and developments 2. Experimental arrangement 3. Normal and anomalous Zeeman Effect	4 Lectures
August 2017	X-ray spectroscopy 1. Nature of X-rays 2. Discrete and continuous X-ray spectra, Duane and Hunt's Rule 3. X-ray emission spectra 4. Mosley's law and its applications 5. Auger effect Problems	6 Lectures
September 2017	Molecular spectroscopy 1. Rotational energy levels 2. Vibrational energy levels 3. Rotational and Vibrational spectra 4. Electronic spectra of molecules Problems	10 Lectures
September	Raman spectroscopy	8 Lectures

2017	1. Classical theory of Raman Effect. Molecular polarizability 2. Quantum theory of Raman Effect 3. Experimental set up for Raman Effect 4. Applications of Raman spectroscopy	
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K.T.SP.Mandals'
HUTATMA RAJGURU MAHAVIDYALAYA Rajgurunagar
Academic Calendar 2017-18
T.Y.B.Sc Subject –Physics **IV**

Nuclear Physics

Date	Topic Taken	Period required
Nov 2017	Basic Properties of Nucleus: Composition, charge, size, density of nucleus, Nuclear Angular momentum, Nuclear magnetic dipole moment, Electric quadrupole moment, parity and symmetry, Mass defect and Binding energy, packing fraction, classification of nuclei, stability of nuclei (N Vs Z Curve) and problems.	6 Lectures
Dec 2017	Radioactivity: Radioactivity disintegration (concept of natural and artificial radioactivity, Properties of α , β , γ -rays, laws of radioactive decay, half-life, mean life, specific activity and its units, successive disintegration and equilibriums and radioisotopes). Application of radioactivity (Agricultural, Medical, Industrial, Archiological). Problems	9 Lectures
Dec 2017	Nuclear forces: Meson theory of nuclear forces, Properties Of nuclear forces, properties of deuteron system, Elementary particles, Quarks model for elementary particles.	7 Lectures
Jan 2018	Nuclear Models Introduction to various nuclear Models, 1. Liquid drop model: Assumptions, semi-empirical mass formula,	8 Lectures

	limitations. 2. Shell Model: Assumptions, Evidences, Spin and Parity limitations	
Jan 2018	Particle Accelerator and Detectors: Introduction to particle Accelerators, 1. Linear (electron/proton Linac) 2. Cyclic (Cyclotron) Classification of Nuclear Detector 1. Gas filled Detectors (G. M. counter) 2. Solid state detectors (scintillation counter)	5 Lectures
Feb 2018	Nuclear Reactions: Introduction to Nuclear reactions, compound nuclear Q-value equation, Exothermic and Endothermic, reaction Threshold energy, Conservation laws, nuclear cross-section. Problems	6 Lectures
Mar 2018	Nuclear Energy: Nuclear fission, chain reaction and critical mass, nuclear reactor and its basic components, homogeneous and heterogeneous reactors, power reactor, fast breeders, nuclear fusion, stellar energy. Problems.	6 Lectures

K.T.S.P. Mandal'S

HUTATMA RAJGURU MAHAVIDYALAYA , RAJGURUNAGAR

DEPARTMENT OF STATISTICS

Workload

Academic Year 2017-18

Class	F.Y.B.Sc.		F.Y.B.Cs.		F.Y.B.B.A.		F.Y.B. Com	Total
Paper	Theor y	Practical	Theory	Practical	Theory	Practical	Theory	
Grant	S1 = 3 S2 = 3	4*4=16	--	--	--		--	22
Grant Total	06	16	--	--	--		--	
Non Grant	--	2*4 =08	S1 = 3 S2 = 3	2*4 = 8	4	2*4 =08	12	42
Non Grant Total	--	08	06	08	04	08	12	
Total	30		14		12		12	68

Individual Workload Distribution

Sr. No.	Name	Workload (Period)
1.	Prof. Thorat S.R.	22
2.	Prof. Wayal V.M.	23
3.	Prof. Shah N.S.	23
Total		68

Distribution of Workload

Sr.No	Class	Subject	Strength	Workload Theory/ Practical	Name of Teacher	Assigned workload
1.	F.Y.B.Sc.	Descriptive Statistics	110	03	Thorat S.R.	03
		Discrete Probability & Probability Distribution	110	03	Thorat S.R.	03
		Practical	110	6 Batches * 4 = 24	Thorat S.R. (4 Batch) Wayal V.M. (2 Batch)	16 08
3.	F.Y.B.Cs.	Statistical Methods I	65	03	Wayal V.M.	03
		Statistical Methods I	65	03	Shah N.S.	03
		Practical	65	2 Batches * 4 = 8	Wayal V.M. (1 Batch) Shah N.S. (1 Batch)	04 04
5.	F.Y.B.B.A.	Business Mathematics	66	04	Wayal V.M.	04
		Practical		2 Batches * 4 = 8	Shah N.S.	08
6.	F.Y.B.Com	Business Mathematics and Statistics	360	4*3=12	Wayal V.M./ Shah N.S.	04 08

K.T.S.P. MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA , RAJGURUNAGAR
DEPARTMENT OF STATISTICS

TIME TABLE

Academic Year 2017-18

Prof. Thorat S.R.

Total Work Load = 22

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.
9.20-10.10	-	-	-	-	-	-
10.10-11.00	-	-	-	-	-	-
11.00-11.50	-	-	-	-	-	-
12.30-3.30	-	-	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.

Prof. Wayal V.M.

Total Work Load = 23

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	F.Y.B.Cs.	-	-	-	-	-
9.20-10.10	-	-	-	F.Y.B.Com.	F.Y.B.B.A.	F.Y.B.Com.
10.10-11.00	F.Y.B.Com.	F.Y.B.Com.	F.Y.B.B.A.	F.Y.B.B.A.	F.Y.B.B.A.	-
11.00-11.50	-	F.Y.B.Cs.	F.Y.B.Cs.	-	-	-
11.50-12.30	-	-	-	-	-	-
12.30-3.30	-	-	F.Y.B.Cs.	F.Y.B.Sc.	F.Y.B.Sc.	-

Prof. Shah N. S.

Total Work Load = 23

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	-	F.Y.B.Com.	F.Y.B.Com.	-	-	-
9.20-10.10	F.Y.B.Com.	F.Y.B.Cs.	-	F.Y.B.Com.	-	F.Y.B.Com.
10.10-11.00	-	-	-	F.Y.B.Com.	F.Y.B.Com.	-
11.00-11.50	-	-	-	-	-	F.Y.B.Cs.
11.50-12.30		F.Y.B.Cs.			F.Y.B.Cs.	
12.30-3.30	F.Y.B.B.A.	-	F.Y.B.Cs.	F.Y.B.B.A.	-	-

Head

Department of Statistics



K.T.S.P. Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA

Rajgurunagar, Tal. Khed, Dist. Pune- 410505

Faculty :- Mental Moral & Social Science

DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Teaching Plan 2017-18

Sr. No	Class	Subject Name	Div.	Teacher Name	Page No.
01	FYBA	Indian Government And Politics	04	Dr. Kailas Sonawane	2-3
02	SYBA	Political Theory & Concepts (G2)	02	Dr. Prabhakar Jagtap	4-5
04	SYBA	Western Political Thought (S1)	01	Dr. Kailas Sonawane	6-7
05	SYBA	Political Sociology (S2)	01	Dr. Prabhakar Jagtap	8-9
06	TYBA	Political Ideology (G3)	01	Dr. Prabhakar Jagtap	10-11
07	TYBA	Public Administration (S3)	01	Dr. Kailas Sonawane	12-13
08	TYBA	International Politics (S4)	01	Dr. Prabhakar Jagtap	14-15



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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name : **INDIAN GOVERNMENT AND POLITICS -[G-1]**

Class : **F.Y.B.A, Division : A, B, C, D**

Name of Professor : **DR. KAILAS SONAWANE**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July-August	Topic 1: Background and the Salient Features of Indian Constitution	a) Formation of Constituent Assembly b) Philosophy of the Preamble for Indian Constitution c) Major Features: Parliamentary Democracy, Federalism, Independent Judiciary –Social Justice and Social Transformation	12
August-Sept.	Topic 2: Fundamental Rights, Duties and the Directive Principles of State Policy	a) Nature of Fundamental Rights –Major Fundamental Rights-Right to Equality, Right to Liberty, Right to Freedom of Religion, Cultural and Educational Rights b) Importance of Fundamental Duties c) Nature and Significance of Directive Principles of State Policy	12
Sept. – October	Topic 3: Federalism	A) Salient Features of Indian Federalism b) Centre –State Relations c) Issues of Conflict-Water Issue, Border Issue and Sharing of Resources	12
October	Topic 4: Structure of Union Government -Legislature- Executive – Judiciary	a) Union Legislature - Structure-Powers and Role b) Union Executive-President, Prime Minister and his Cabinet- Role and Functions c) Judiciary- Nature of Judiciary, Supreme Court-Powers and Functions	12

Term-II

December	Topic 5: Structure of State Government -Legislature- Executive – Judiciary	a) State Legislature - Structure-Powers and Role b) State Executive-Governor , Chief Minister and his Cabinet- Role and Functions c) Judiciary- Nature of Judiciary, High Court- Powers and Functions	12
January	Topic 6: Party System and Elections	a) Nature and Changing Pattern of Party System b) Elections- Election Commission :-Major Features of Electoral System and Patterns Of Voting Behavior c) Rise and Role of Regional Parties	12
February	Topic 7: Role of Caste and Religion in Indian Politics	a) Caste and Politics of Identity b) Rise of OBCs c) Religion and Politics of Communalism	12
March	Topic 8: Issues of Regionalism and Development	a) Causes and Patterns of Regionalism b) Issues of Development-Uneven Development-Leading to Regional Imbalance- Poverty Eradication, Health and Education	12



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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name : **POLITICAL THEORY& CONCEPTS-[G-2]**

Class : **S.Y.B.A.**, Division : **A & B**

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July	Unit – I - Introducing Political Theory	a) Definitions, Nature & Scope b) Traditions of Political Theory: Liberal & Conservative	12
August	Unit – II State	a) Definitions Meaning and Elements b) Perspectives on State (Liberal, Marxist)	12
Sept.	Unit – III Power & Authority	a) Conceptions of Power, Power as Exploitation, Authority, Hegemony, Foucault on Power b) Authority: Meaning, Nature & its forms	12
Oct	Unit – IV Right and Justice	a) Meaning, Nature & Kinds of Rights b) Dimensions of Justice (Social, Economic Political)	12

Term-II

Nov	Unit – V Liberty and Equality	a) Liberty: Meaning, Nature, Classification: Negative & Positive Liberty b) Equality: Meaning, Nature, Types of Equality: Equality OF Opportunity; political Equality, Affirmative Action	12
Dec.	Unit – VI Democracy	a) The Concept of Democracy, Direct Participatory & Liberal Democracy b) Perspectives on Democracy, Merits and demerits	12
Jan	Unit – VII Sovereignty	a) Meaning & Characteristics of sovereignty b) Theory of Popular Sovereignty	12
Feb- Mar	Unit – VIII Globalization	a) Definition, Meaning b) Impact of Globalization	12



K.T.S.P. Mandal's

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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name : **WESTERN POLITICAL THOUGHT [S-1]**

Class : **S.Y.B.A**, Division : --

Name of Professor : **DR. KAILAS SONAWANE**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July	Unit –I Plato	a) Ideal State & Philosopher King b) Views on Education c) Views on Justice & Communism	12
August	Unit – II Aristotle	a) Views on State b) Views on Property, Views on Slavery c) Views on Revolution	12
Sep.	Unit – III Machiavelli	a) Views on Human Nature b) Views on Religion & Morality c) Theory of Statecraft	12
Oct.	Unit – IV J.S.Mil	a) Views on Utilitarianism b) Views on Liberty c) Views on Representative Government & State	12

Term - II

Nov.	Unit – V Karl Marx	a) Historical Materialism b) Theory of Class & Struggle c) Theory of State & Revolution	12
Dec	Unit – VI Hobbes	a) State of Nature b) Views on Human Nature c) Theory of Social Contract	12
Jan	Unit – VII John Locke	a) Theory of Social Contract b) Views on natural Rights c) Views on civil society & State	12
Feb	Unit – VI Rousseau	a) State of Nature & Views on Human Nature b) Theory of General Will	08
Mar	Rousseau	c) Theory of Social Contract	4



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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name : **POLITICAL SOCIOLOGY-[S-2]**

Class : **S.Y.B.A** Division : --

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July	Unit – I Definition, Nature and Scope of Political Sociology	Definition, Nature and Scope of Political Sociology	12
August	Unit – II Intellectual Foundation of Political Sociology	a) Marx b) Max Weber c) Behavioral Approach	12
Sep	Unit – III Political Culture	a) Meaning and Nature b) Types of Political Culture	12
Oct	Unit – VI Political Socialization	a) Process and Agencies of Socialization	12

Term-II

Nov	Unit – V Political Ideology	a) Meaning and Nature	12
Dec	Unit – VI Political Participation	a) Meaning and Nature b) Levels of Participation c) Agencies of Recruitment	12
Jan	Unit – VII Legitimacy and Influence	a) Meaning and Nature b) Types	12
Feb.	Unit – VIII Political Change, Political Development	a. Meaning and Nature b. Types of Political Change	06
Mar	--/--	c) Concept of Political Development	06



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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name: **POLITICAL IDEOLOGIES [G-3]**

Class : **T.Y.B.A** Division : A&B

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July	Unit – I Ideology	a) Origin, Meaning, Definition b) Nature and Scope	08
August	Unit – II Nationalism	a) Meaning, Definitions and Elements b) Progressive and Reactionary c) Internationalism	14
Sep	Unit – III Democratic Socialism	a) Meaning, Nature and Features b) Achievements and Limitations c) Types : Fabianism, Syndicalism, Guild Socialism	14
Oct	Unit – IV Fascism	a) Factors responsible for the rise of Fascism b) Principles c) Corporate State	12

Term-II			
Nov	Unit – V Marxism	a) Historical Materialism b) Theory of Surplus Value c) Marxian State	12
Dec	Unit – VI Phule- Ambekarism	a) Equality b) Religion c) Democracy	12
Jan	Unit – VII Gandhism	a) Truth and Non-Violence b) Theory of Satyagraha c) Gram Swaraj	12
Feb-March	Unit – VIII Feminism	a) Meaning and Nature b) Liberal Feminism c) Feminism in India : Caste, Patriarchy, Women's Representation	12



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DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name: **PUBLIC ADMINISTRATION [S-3]**

Class : **T.Y.B.A.**, Division : --

Name of Professor : **DR. KAILAS SONAWANE**

Term-I

Month	Unit/ Chapter	Sub- Units	No. of Periods Required
July	Unit – I Public Administration	(a) Public Administration Meaning, nature,	6
August	Unit – I Public Administration	Scope and significance	6
Sep	Unit – II New public Administration	(a) Evolution (b) Salient features (c) Goals	12
Oct	Unit – III Approaches of public Adm.	(d) Traditional (e) Behavioral (c) System	12
Oct	Unit – IV Governance	(a) Idea of good Governance (b) E-Governance (c) Public private Partnerships	12

Term-II

Nov	Unit – V Bureaucracy	(a) Meaning and Definition (b) Administrative Reforms	12
Dec	Unit – VI Personnel Administration	(a) Recruitment (b) Training (c) Promotion	12
Jan	Unit – VII Budget	(a) Meaning and types (b) Budgetary process in India	12
Feb	Unit – VIII Accountability and Control	(a) Administrative Control (b) Legislative Control	6
Mar	---//---	(c) Judicial Control	6



K.T.S.P. Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA

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Faculty :- Mental Moral & Social Science

DEPARTMENT OF POLITICAL SCIENCE

ANNUAL TEACHING PLAN-2017-18

Paper Name: **INTERNATIONAL POLITICS [S-4]**

Class : **T.Y.B.A** Division :--

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	Unit/Chapter	Sub- Units	No. of Periods Required
July	Unit – I International Politics	a) Nature and Scope b) Theories of Idealism and Realism	12
August	Unit – II Approaches to the Study of International Relations	a) Power Approach b) Decision Making Approach c) System Approach	12
Sep	Unit – III Power	a) Meaning b) Elements c) Changing Nature of the National Power	12
Oct	Unit – VI Balance of Power	a) Meaning and Nature b) Characteristics c) Changing Nature of the Balance of Power	12

Term-II			
Nov	Unit – V Security	a) Meaning and definition b) Regional Security c) Collective Security	12
Dec	Unit – VI Diplomacy	a) Meaning b) Types of Diplomacy c) Challenges To Diplomacy	12
Jan	Unit – VII Disarmament	a) Meaning and Nature b) Types of Disarmament c) Issues and Challenges	12
Feb-March	Unit – VIII Issues in International Politics	a) Human Rights –Its variations and Measures b) Terrorism – Causes and Consciousness	12

आज दि 10/08/1972 रोजी को ना पि प्र-गोदळचे हलक्या
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समा आगोनिता करवणत आनी होनी

या नमसहय आनीता मुद्रावर पन्ना करवणत
आनी

- १) बर्कनोट डिस्कोपान
- २) टाईमटेबल
- ३) मटादिदबान्यानी वेत पाळती इ

या अभेदाही आनीन या उपरिक्त होनी

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Meeting of Staff members of Dept of Zoology held on _____ at Dept of Zoology under the chair of Principal of College & Head of Dept of Zoology Dr. S. B. Patel. All staff members were present for meeting the following points regarding to Syllabus, Theory & Practical Work distribution among the staff members.

The following decisions were taken in meeting.

* Theory :-

1) F.T. Bsc

- Cell Biology - D.L.T
- Animal Syst & Diversity - S.B.P, S.M.D & A.P.S

2) S.T. Bsc

- 1) Animal Systematics - D.N.B & D.L.T
- 2) Applied Zoology - S.B.P & A.P.S

3) T.T. Bsc

- 1) Animal Syst & Div. - D.N.B
- 2) Immunology Histology - S.B.P & S.S.P
- 3) Biochemistry - I.A.A
- 4) Env. & Technology - S.M.D
- 5) Parasitology - A.P.S
- 6) Cell Biology - D.L.T

* Practicals :-

1) F.T. Bsc : D.L.T & A.P.S

2) S.T. Bsc : D.N.B

3) T.T. Bsc : S.B.P, S.S.P & S.M.D

- 1) Prof. Dr. S. B. Patil
- 2) Prof. D. N. Birhade
- 3) Prof. S. S. Patil
- 4) B. Prof. D. L. Takadake
- 5) Prof. A. A. Shinde
- 6) Prof. A. A. Indur

KTSP MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
 (Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Workload

ACADEMIC YEAR—2017-18 (SEM I)

Class	F.Y. BBA(CA)		S.Y. BBA(CA)		T.Y. BBA(CA)		TOTAL
Paper	Theory	Pract.	Theory	Pract.	Theory	Pract.	
Non Grant	20	20	20	16	16	26	118hrs
Total Workload for Non Grant	20	20	20	16	16	26	
Total	20	20	20	16	16	26	118hrs

Head of Department
BBA(CA)

KTSP MANDAL'S
HUTATMA RAJGURU MAHAVIDYALYA,
RAJGURUNAGAR, TAL – KHED, DIST – PUNE.
(Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Individual Workload Distribution Academic Year 2017-18 (SEM I)

Individual Workload				
Sr. No.	Name	Workload (No. of Lectures Allotted per Week)		
		Theory	Practical	Total
1	Prof. V.A.Sandbhor.	08	18	26
2	Prof. V.V.Wadekar.	16	08	24
3	Prof. P.D.Tanpure.	12	12	24
4	Prof.V.R.Pande.	08	16	24
5	Prof.T.B Vehale.	04	08	12
6	Prof.S.N.Karle.	04	----	04
7	Prof.R.H.Kale.	04	----	04
	Total Periods	118		

Head of Department
BBA(CA)

K. T. S. P MANDAL'S
HUTATMA RAJGURU MAHAVIDYALYA,
 RAJGURUNAGAR, TAL – KHED, DIST – PUNE.
 (Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Departmental Workload For Academic Year 2017-18 (SEM I)

Class:FYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	FY BBA (CA)	Modern Operating Environment & MS Office	68	4	4+4	12	Prof. V.V.Wadekar.	12
2		Financial Accounting	68	4	4+4	12	Prof. T.B.Vehale.	12
3		Programming Principles & Algorithms	68	4	4	07	Prof. P.D.Tanpure.	08
4		Business Communication	68	4	----	04	Prof. R.H.Kale.	04
5		Principles of Management	68	4	----	04	Prof. V.V.Wadekar.	04
		Total		20	19	40		40
Class:SYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	SY BBA (CA)	Relational Database Management System	42	4	4+4	12	Prof. V.A.Sandbhor.	12
2		Data Structure using C	42	4	4+4	12	Prof. V.R.Pande.	12
3		Operating System Concepts	42	4	----	04	Prof. P.D.Tanpure.	04
4		Business Mathematics	42	4	----	04	Prof.S.N.Karle.	04

5		Software Engineering	42	4	----	04	Prof. V.V.Wadekar.	04
		Total		20	16	36		36
Class:TYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	TY BBA (CA)	Java Programming	41	4	4+4	12	Prof. P.D.Tanpure	12
2		Web Technologies	41	4	4+4	12	Prof. V.R.Pande.	12
3		Dot Net Programming	41	4	4+4	12	Prof. V.A.Sandbhor	12
4		Object Oriented Software Engineering	41	4	----	04	Prof. V.V.Wadekar	04
5		Software Project - [Based on C++/VB Technology]	41	----	02	02	Prof. V.A.Sandbhor	02
		Total		16	26	42		42

Head of Department
BBA(CA)

KTSP MANDAL'S
HUTATMA RAJGURU MAHAVIDYALYA,

RAJGURUNAGAR, TAL – KHED, DIST – PUNE.

(Internal Quality Assurance Cell)

Name of Department: - BBA(CA)

Time Table For Academic Year 2017-2018

Prof. Prof. V.A.Sandbhor.

(Total Workload 26)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10			VB.NET		RBDMS B2	VB.NET B1
2	9.20 - 10.10		VB.NET	RBDMS	RBDMS		
3	10.10 - 11.00	RBDMS					
4	11.00 - 11.50					VB.NET	VB.NET
5	11.50 - 12.40		RBDMS	RBDMS B1	VB.NET B2	PROJECT	
6	12.40 – 2.00		PROJECT				

Prof. Prof. V.V.Wadekar.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10			MOE B2	MOE	OOSE	
2	9.20 - 10.10	SE	MOE				MOE
3	10.10 - 11.00	MOE	OOSE		PM	PM	
4	11.00 - 11.50	OOSE	MOE B1	PM	SE	SE	PM
5	11.50 - 12.40			OOSE			SE
6	12.40 – 2.00						

Prof. Prof. P.D.Tanpure.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10		JAVA		JAVA B1		
2	9.20 - 10.10			JAVA			OS
3	10.10 - 11.00		PPA	JAVA		JAVA	OS
4	11.00 - 11.50	PPA	OS	OS	PPA	PPA	
5	11.50 - 12.40	JAVA B2		PPA TUTORIAL	PPA TUTORIAL	PPA TUTORIAL	PPA TUTORIAL
6	12.40 - 1.30						

Prof. Prof.V.R.Pande.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10	WT B1	DS B1				
2	9.20 - 10.10					WT	
3	10.10 - 11.00			DS	DS		
4	11.00 - 11.50	DS	WT	WT	WT		DS
5	11.50 - 12.40					DS B2	WT
6	12.40 - 1.30						B2

Head of Department
BBA(CA)

1. *Journal of Management Education*, 2000, 24(1), 1-10.
 2. *Journal of Management Education*, 2000, 24(1), 11-20.
 3. *Journal of Management Education*, 2000, 24(1), 21-30.

11

[illegible]

doi:10.1017/S0007122614000050

[illegible]

डा. प्रमोद कुमार शर्मा, एम. एड., एम. एड. (एड.) (विश्वविद्यालयी शिक्षण)

[illegible]

पुस्तक की कीमत : आठवीं पाठशाला कीमत रु. 10.00/-

[illegible][illegible]

DOI: 10.1002/for


 शिक्षा विभाग, भारत सरकार
 नई दिल्ली

Revised manuscript received 20 May 2004; accepted 24 June 2004

[illegible]

संस्कृत भाषा के अन्तर्गत विषयगत सूचकांक (1990-1991)

[illegible]

विश्व का सबसे बड़ा देश (क्षेत्रफल के हिसाब से) है।

[illegible]

संशोधनार्थी नाम : विष्णुधर अ. लोटेकर, भारत, मुंबई, ४००००५

[illegible]

ARTICLE 144-2-2. (a) The following shall be the minimum standards for the design and construction of all new and existing buildings, structures, and facilities, including but not limited to, buildings, structures, and facilities used for residential, commercial, industrial, institutional, and public purposes:

72

[Signature]
M. T. S. S. S.
D. S. S. S.
R. S. S. S.

खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरू महाविद्यालय,

राजगुरूनगर ता. खेड, जि. पुणे. ४१०५०५

मराठी विभाग

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ – २०१८

अ.क्र.	वर्ग	विषयाचे नाव	तुकडी	विषय शिक्षक
१	प्रथम वर्ष कला	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी	ए	डॉ. संजय शिंदे
			बी	डॉ.बाळासाहेब अनुसे
			सी	प्रा.वर्षा कांबळे
			डी	प्रा.एस.व्ही.धानापुणे
२	प्रथम वर्ष वाणिज्य	मराठी पुनर्रचित अभ्यासक्रम	ए.	डॉ. संजय शिंदे
			बी, सी, डी.	प्रा.वर्षा कांबळे
			इ, एफ.जी	प्रा.एस.व्ही.धानापुणे
३	द्वितीय वर्ष कला	आधुनिक मराठी साहित्य आणि उपयोजित मराठी (जी २)	ए	डॉ. संजय शिंदे
४	द्वितीय वर्ष कला	मराठी साहित्यातील विविध साहित्यप्रकार (एस.१)	ए	डॉ.बाळासाहेब अनुसे
५	द्वितीय वर्ष कला	अर्वाचीन मराठी वाङ्मयाचा इतिहास (एस.२)	ए	डॉ. संजय शिंदे
६	द्वितीय वर्ष विज्ञान	मराठी विज्ञान साहित्य आणि व्यावहारिक व उपयोजित मराठी	ए	डॉ.बाळासाहेब अनुसे
७	तृतीय वर्ष कला	आधुनिक मराठी साहित्य आणि व्यावहारिक व उपयोजित मराठी (जी ३)	ए	डॉ.बाळासाहेब अनुसे
८	तृतीय वर्ष कला	साहित्यविचार (एस.३)	ए	डॉ. संजय शिंदे
९	तृतीय वर्ष कला	भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक (एस.४)	ए	डॉ.बाळासाहेब अनुसे

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ — २०१८

विषय शिक्षकाचे नाव — डॉ. संजय शिंदे

अ.क्र.	वर्ग	तुकडी	विषयाचे नाव
१	प्रथम वर्ष कला	ए	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी
२	प्रथम वर्ष वाणिज्य	ए.	मराठी (पाठ्यपुस्तक व उपयोजित मराठी)
३	द्वितीय वर्ष कला	ए.	आधुनिक मराठी साहित्य आणि उपयोजित मराठी (जी २)
४	द्वितीय वर्ष कला	ए.	आधुनिक मराठी साहित्य आणि उपयोजित मराठी (जी २)
५	तृतीय वर्ष कला	ए.	साहित्यविचार (एस.३)

वर्ग — प्रथम वर्ष कला

विषय — आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी

विषय शिक्षकाचे नाव — डॉ. संजय शिंदे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ — नेमलेला कथासंग्रह 'मराठी विनोदी कथा' —	वर्तमानपत्रकर्ता — श्री.कृ.कोल्हटकर
जुलै २०१७	१६	'मराठी विनोदी कथा' —	नाटक कसे लिहावे — राम गणेश गडकरी चिमणरावांचे वक्तृत्व — चिं.वि.जोशी पहिले कावळे संमेलन—आचार्य अत्रे म्हैस — पु.ल.देशपांडे
ऑगस्ट २०१७	१६	'मराठी विनोदी कथा' —	तक्रार — शंकर पाटील बंडू आणि अमेरिकेची कानउघाडणी — गंगाधर गाडगीळ, झोप — द.मा.मिरासदार
सप्टेंबर २०१७	१६	'मराठी विनोदी कथा' — घटक २ व्यक्तिमत्त्व विकास आणि भाषा	आचार्य अत्रे कसा झालो नाही — मुकुंद टांकसाळे पेज श्री कथा — मंगला गोडगोले व्यक्तिमत्त्व विकास संकल्पना व्यक्तिमत्त्व विकासात भाषेचे स्थान
ऑक्टोबर २०१७	१०	भाषिक कौशल्ये कार्यक्रम नियोजन कौशल्ये	लेखन, वाचन, संभाषण, श्रवण कौशल्ये सूत्रसंचालन, प्रास्ताविक, परिचय, स्वागत, मनोगत.
डिसेंबर	१६	घटक ३ नेमलेला कवितासंग्रह	कवितेचे स्वरूप, जन्मदात्री आई संबंधी

२०१७		‘मातृपंचक’	कविता काळी आई संबंधी कविता
जानेवारी २०१८	१६	‘मातृपंचक’	दैवत माऊली संबंधी कविता, मातृभाषा संबंधी कविता, मातृभूमी संबंधी कविता
फेब्रुवारी २०१८	१६	‘मातृपंचक’ घटक ४ व्यावहारिक मराठी	मातृभूमी संबंधी कविता वर्तमानपत्रासाठी बामती लेखन दृक—श्राव्य माध्यमांसाठी मुलाखत लेखन
मार्च २०१८	१२	घटक ४ व्यावहारिक मराठी	पारिभाषिक संज्ञा अशुद्ध शब्द शुद्ध करणे

वर्ग — प्रथम वर्ष वाणिज्य
विषय — मराठी (पाठ्यपुस्तक व उपयोजित मराठी)

विषय शिक्षकाचे नाव — डॉ. संजय शिंदे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ — व्यावहारिक आणि उपयोजित मराठी	निबंध लेखन
जुलै २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ. श्रीराम लागू, लता मंगेशकर डॉ. राम ताकवले, डॉ. विजय भटकर
ऑगस्ट २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ.ह.वि.सरदेसाई, डॉ.गुनाथ माशेलकर, डॉ.बालाजी तांबे
सप्टेंबर २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	सिंधुताई सपकाळ, श्री.हुकमीचंद व सौ. कमल चोरडिया,
ऑक्टोबर २०१७	१०	घटक २ — यशोगाथा पाठ्यपुस्तक	फादर फ्रान्सिस दिब्रिटो, सचिन तेंडूलकर
डिसेंबर २०१७	१६	घटक २ — उपयोजित मराठी	अर्जलेखन, टिप्पणीलेखन, निविदा लेखन
जानेवारी २०१८	१६	घटक २ — उपयोजित मराठी	इतिवृत्तलेखन, माहितीपत्रक, घोषणापत्रक जाहीर निवेदन,
फेब्रुवारी २०१८	१६	घटक २ — उपयोजित मराठी	वर्तमानपत्रासाठी बातमीलेखन, सारांशलेखन, भाषांतरलेखन
मार्च २०१८	१२	घटक २ — उपयोजित मराठी	भाषांतरलेखन मौखिक परीक्षा

वर्ग — द्वितीय वर्ष कला

विषय — आधुनिक मराठी साहित्य आणि उपयोजित मराठी (जी २)

विषय शिक्षकाचे नाव : डॉ. संजय शिंदे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १— उपयोजित मराठी	१. अर्जलेखन
जुलै २०१७	१६	उपयोजित मराठी घटक २— चरित्र या साहित्य प्रकाराची तात्विक मीमांसा	२. अशुद्ध शब्द शुद्ध करून लिहिणे चरित्र : संकल्पना, चरित्र: साहित्य प्रकाराचे स्वरूप, चरित्र: साहित्य प्रकाराची वाटचाल
ऑगस्ट २०१७	१६	घटक ३ — पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक
सप्टेंबर २०१७	१६	नेमलेले पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक
ऑक्टोबर २०१७	१६	नेमलेले पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक
डिसेंबर २०१७	१६	व्यावहारिक मराठी ‘आत्मचरित्र’ या साहित्य प्रकाराची तात्विक मीमांसा	सारांश लेखन, पारिभाषिक संज्ञा आत्मचरित्र : संकल्पना, आत्मचरित्र व आत्मकथन : साम्यभेद,
जानेवारी २०१८	१६	‘आत्मचरित्र’ या साहित्य प्रकाराची तात्विक मीमांसा नेमलेले पाठ्यपुस्तक	आत्मचरित्र : साहित्यप्रकाराची वाटचाल ‘माझी जडणघडण’
फेब्रुवारी २०१८	१६	नेमलेले पाठ्यपुस्तक	‘माझी जडणघडण’
मार्च २०१८	१६	नेमलेले पाठ्यपुस्तक	‘माझी जडणघडण’

वर्ग — द्वितीय वर्ष कला

विषय : अर्वाचीन मराठी वाङ्मयाचा इतिहास (एस.२)

विषय शिक्षकाचे नाव : डॉ. संजय शिंदे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	इ.स.१८१८ ते १९२०या कालखंडातील पार्श्वभूमी	इ.स.१८१८ ते १९२०या कालखंडातील सामाजिक पार्श्वभूमी.
जुलै २०१७	१६	इ.स.१८१८ ते १९२०या कालखंडातील पार्श्वभूमी व प्रेरणा आणि प्रवृत्ती	इ.स.१८१८ ते १९२०या कालखंडातील धार्मिक, सांस्कृतिक आणि वाङ्मयीन पार्श्वभूमी इ.स.१८१८ ते १९२०या कालखंडातील प्रेरणा आणि प्रवृत्ती
ऑगस्ट २०१७	१६	इ.स.१८१८ ते १९२० या कालखंडातील प्रेरणा आणि प्रवृत्ती व निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१८१८ ते १९२०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१८१८ ते १९२०या कालखंडातील कथा, कादंबरी, वाङ्मयप्रकारांचा स्थूल आढावा.
सप्टेंबर २०१७	१६	निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१८१८ ते १९२०या कालखंडातील कविता, नाटक, चरित्र, आत्मचरित्र या निवडक वाङ्मयप्रकारांचा आढावा.
ऑक्टोबर २०१७	०८		इ.स.१८१८ ते १९२०या कालखंडातील आत्मचरित्र वाङ्मयप्रकारांचा आढावा
डिसेंबर २०१७	१६	इ.स.१९२१ ते १९६०या कालखंडातील पार्श्वभूमी	इ.स.१९२१ ते १९६०या कालखंडातील सामाजिक पार्श्वभूमी.
जानेवारी २०१८	१६	इ.स.१९२१ ते १९६०या कालखंडातील पार्श्वभूमी या कालखंडातील प्रेरणा आणि प्रवृत्ती	इ.स.१९२१ ते १९६०या कालखंडातील धार्मिक, सांस्कृतिक आणि वाङ्मयीन पार्श्वभूमी इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती
फेब्रुवारी २०१८	१६	इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१९२१ ते १९६०या कालखंडातील निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१९२१ ते १९६०या कालखंडातील कथा, कादंबरी, वाङ्मयप्रकारांचा स्थूल आढावा.
मार्च २०१८	१६	निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१९२१ ते १९६०या कालखंडातील कविता, नाटक, चरित्र, आत्मचरित्र या निवडक वाङ्मयप्रकारांचा आढावा.

वर्ग — तृतीय वर्ष कला
विषय : साहित्यविचार (एस.३)

विषय शिक्षकाचे नाव : डॉ. संजय शिंदे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	साहित्याचे स्वरूप	१) शास्त्रीय साहित्य आणि ललित साहित्य यांतील भेद
जुलै २०१७	१६	१.साहित्याचे स्वरूप	२)साहित्याचे शब्दरूप ३)साहित्यातून व्यक्त होणा—या अनुभवाचे विशेष — वास्तव आणि कल्पित यांचा संबंध, संवेदनात्मकता —भावनात्मकता—वैचारिकता,सेंद्रियत्व, सूचकता,विशिष्ट आणि विश्वात्मकता
ऑगस्ट २०१७	१६	२.साहित्याचे प्रयोजन	१) प्रयोजन म्हणजे काय?२) प्रयोजन आणि परिणाम यांतील भेद ३) साहित्याची प्रयोजने — इच्छापूर्ती, जिज्ञासातृप्ती, विरेचन, आत्माविष्कार, अनुभवाची समृद्धी, स्वप्नरंजन, उद्बोधन,प्रचार, मनोरंजन, आनंद या प्रयोजनांचा लेखक व वाचक तसेच कलावादी, जीवनवादी या दृष्टीने विचार
सप्टेंबर २०१७	१६	३.साहित्याची निर्मितीप्रक्रिया ४.साहित्याची भाषा	१) साहित्याच्या निर्मितीचे स्वरूप २) साहित्यनिर्मितीच्या शक्ती ३) प्रतिभाव्यापार व स्वप्नव्यापार ४) साहित्याची निर्मिती प्रक्रिया आणि साहित्यिकाचे व्यक्तिमत्त्व, व्यवहारभाषा, शास्त्रीय साहित्याची भाषा व साहित्याची भाषा यांच्यातील भेद, शब्दार्थाचा वक्रव्यापार
ऑक्टोबर २०१७	०८	४.साहित्याची भाषा	भाषेचे नादरूप, अलंकार, रूपक, प्रतिमा, प्रतीक, प्राक्कथा,शैलीविचार
डिसेंबर २०१७	१६	५.साहित्याचा आस्वाद	१) आस्वाद म्हणजे काय ? २) आस्वाद प्रक्रिया ३)आस्वादाला आवश्यक असणारे गुण ४) आस्वादातील अडथळे
जानेवारी २०१८	१६	६.साहित्याची सामाजिकता	१)साहित्य आणि समाज यांचे परस्परसंबंध २)लेखकाची सामाजिकता ३)भाषेची सामाजिकता ४)कलात्मक अनुभवाची सामाजिकता ५)वाचकाची सामाजिकता ६)साहित्यातील सामाजिकतेला वैश्विक रूप प्राप्त होते काय ?७)बांधिलकीची संकल्पना व साहित्यिकाची बांधिलकी
फेब्रुवारी २०१८	१६	७.साहित्यिक अभिरूची	१) अभिरूची म्हणजे काय ?२) अभिरूची आणि सौंदर्यदृष्टी ३) अभिरूची आणि औचित्य४) अभिरूची भिन्नतेची कारणे ५) अभिरूची नियत करणारे घटक
मार्च २०१८	१६	८.साहित्यप्रकाराची संकल्पना	१)साहित्याच्या वर्गीकरणाची शक्यताशक्यता २)साहित्याच्या वर्गीकरणाची आवश्यकता३) साहित्याच्या वर्गीकरणाची तत्त्वे४) साहित्याचे ठळक प्रकार

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ – २०१८

विषय शिक्षकाचे नाव – डॉ. बाळासाहेब अनुसे

अ.क्र.	वर्ग	तुकडी	विषयाचे नाव
१	प्रथम वर्ष कला	बी	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी
२	द्वितीय वर्ष कला	ए.	मराठी साहित्यातील विविध साहित्यप्रकार (एस. १)
३	द्वितीय वर्ष विज्ञान	ए.	मराठी विज्ञान साहित्य आणि व्यावहारिक व उपयोजित मराठी
४	तृतीय वर्ष कला	ए.	आधुनिक मराठी साहित्य आणि व्यावहारिक व उपयोजित मराठी (जी ३)
५	तृतीय वर्ष कला	ए.	भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक (एस. ४)

वर्ग – प्रथम वर्ष कला

विषय – आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी

विषय शिक्षकाचे नाव – डॉ. बाळासाहेब अनुसे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ – नेमलेला कथासंग्रह 'मराठी विनोदी कथा' –	वर्तमानपत्रकर्ता – श्री.कृ.कोल्हटकर
जुलै २०१७	१६	'मराठी विनोदी कथा' –	नाटक कसे लिहावे – राम गणेश गडकरी चिमणरावांचे वक्तृत्व – चिं.वि.जोशी पहिले कावळे संमेलन-आचार्य अत्रे म्हैस – पु.ल.देशपांडे
ऑगस्ट २०१७	१६	'मराठी विनोदी कथा' –	तक्रार – शंकर पाटील बंडू आणि अमेरिकेची कानउघाडणी – गंगाधर गाडगीळ, झोप – द.मा.मिरासदार
सप्टेंबर २०१७	१६	'मराठी विनोदी कथा' – घटक २ व्यक्तिमत्त्व विकास आणि भाषा	आचार्य अत्रे कसा झालो नाही – मुकुंद टांकसाळे पेज श्री कथा – मंगला गोडगोले व्यक्तिमत्त्व विकास संकल्पना व्यक्तिमत्त्व विकासात भाषेचे स्थान
ऑक्टोबर २०१७	१०	भाषिक कौशल्ये कार्यक्रम नियोजन कौशल्ये	लेखन, वाचन, संभाषण, श्रवण कौशल्ये सूत्रसंचालन, प्रास्ताविक, परिचय, स्वागत, मनोगत.

डिसेंबर २०१७	१६	घटक ३ नेमलेला कवितासंग्रह 'मातृपंचक'	कवितेचे स्वरूप, जन्मदात्री आई संबंधी कविता काळी आई संबंधी कविता
जानेवारी २०१८	१६	'मातृपंचक'	दैवत माऊली संबंधी कविता, मातृभाषा संबंधी कविता, मातृभूमी संबंधी कविता
फेब्रुवारी २०१८	१६	'मातृपंचक' घटक ४ व्यावहारिक मराठी	मातृभूमी संबंधी कविता वर्तमानपत्रासाठी बामती लेखन दृक—श्राव्य माध्यमांसाठी मुलाखत लेखन
मार्च २०१८	१२	घटक ४ व्यावहारिक मराठी	पारिभाषिक संज्ञा अशुद्ध शब्द शुद्ध करणे

वर्ग — द्वितीय वर्ष कला

विषय — मराठी साहित्यातील विविध साहित्यप्रकार (एस. १)

विषय शिक्षकाचे नाव : डॉ. बाळासाहेब अनुसे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	१. नाटक — तात्विक, सैद्धांतिक, चर्चा,	नाटक म्हणजे काय, व्याख्या, घटक आणि रचना, नाट्यतंत्र,
जुलै २०१७	१६	१. नाटक — तात्विक, सैद्धांतिक, चर्चा २. मराठी नाट्य परंपरा	विविध नाट्यप्रकार, आशयानुसार प्रकार, नाटकाचे सादरीकरण, प्रयोगमूल्य. विकासाचे टप्पे, प्राचीन परंपरा, नाटक या साहित्य प्रकाराची वाटचाल,
ऑगस्ट २०१७	१६	२. मराठी नाट्य परंपरा	नाटक आणि इतर वाड्मय प्रकार, साम्य—भेद
सप्टेंबर २०१७	१६	३. नेमलेले नाटक —	नटसम्राट — वि.वा. शिरवाडकर.
ऑक्टोबर २०१७	१६	३. नेमलेले नाटक —	नटसम्राट — वि.वा. शिरवाडकर.
डिसेंबर २०१७	१६	कादंबरी — तात्विक, सैद्धांतिक, चर्चा,	कादंबरी या साहित्यप्रकाराची तात्विक मीमांसा, व्याख्या, घटक, स्वरूप, संकल्पना, प्रकार, वाटचाल, विशेष, रूपबंध, वर्गीकरण,
जानेवारी २०१८	१६	कादंबरी आणि इतर साहित्य	परस्पर संबंध आणि साम्यभेद. मराठी कादंबरीची जडणघडण, कादंबरीची ऐतिहासिक स्थित्यंतरे, कादंबरी या वाड्मयप्रकाराचे समकालीन विविध आयाम,

फेब्रुवारी २०१८	१६	नेमलेली कादंबरी	फकिरा — अण्णा भाऊ साठे.
मार्च २०१८	१२	नेमलेली कादंबरी	फकिरा — अण्णा भाऊ साठे.

वर्ग — द्वितीय वर्ष विज्ञान

विषय : मराठी विज्ञान साहित्य आणि व्यावहारिक आणि उपयोजित मराठी

विषय शिक्षकाचे नाव : डॉ. बाळासाहेब अनुसे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ — निबंधलेखन	घटक १ — निबंधलेखन
जुलै २०१७	१६	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ. बाळासाहेब गुंजाळ
ऑगस्ट २०१७	१६	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ. बाळासाहेब गुंजाळ
सप्टेंबर २०१७	१६	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ. बाळासाहेब गुंजाळ
ऑक्टोबर २०१७	०८	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी अंतर्गत मूल्यमापन परीक्षा
डिसेंबर २०१७	१६	व्यावहारिक आणि उपयोजित मराठी	भाषांतरलेखन— संकल्पना, स्वरूप
जानेवारी २०१८	१६	व्यावहारिक आणि उपयोजित मराठी	एक तृतीयांश सारांशलेखन — संकल्पना, स्वरूप
फेब्रुवारी २०१८	१६	व्यावहारिक आणि उपयोजित मराठी	प्रसारमाध्यमांसाठी विज्ञानविषयक लेखन —वर्तमानपत्रासाठी लेख तयार करणे. जाहिरात तयार करणे आकाशवाणीसाठी भाषणाचे संहितालेखन, इ.
मार्च २०१८	१२	व्यावहारिक आणि उपयोजित मराठी	दूरदर्शनसाठी मुलाखतलेखन, इंग्रजी शब्दांसाठी मराठीतील पारिभाषिक शब्द अंतर्गत मूल्यमापन परीक्षा

वर्ग – तृतीय वर्ष कला

विषय : आधुनिक मराठी साहित्य आणि व्यावहारिक व उपयोजित मराठी (जी ३)

विषय शिक्षकाचे नाव : डॉ. बाळासाहेब अनुसे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	१.ग्रंथ परीक्षण	स्वरूप, घटक,
जुलै २०१७	१६	१.ग्रंथ परीक्षण	विविध वाङ्मय प्रकारातील साहित्यकृतींचे परीक्षण कसे करावे, ग्रंथ परीक्षण – तात्त्विक विवेचन, व्याख्या, माध्यमे, परीक्षकाचे गुण, उद्दिष्टे
ऑगस्ट २०१७	१६	२.निबंध – तात्त्विक विवेचन	निबंध या साहित्यप्रकाराचे स्वरूप व व्याख्या, निबंधाचे प्रकार, निबंध या साहित्यप्रकारामागील प्रेरणा व प्रयोजने
सप्टेंबर २०१७	१६	३.निबंधसंग्रह	विचारधारा – संपा. डॉ.स्नेहल तावरे, डॉ. भास्कर शेळके
ऑक्टोबर २०१७	१६	३.निबंधसंग्रह	विचारधारा – संपा. डॉ.स्नेहल तावरे, डॉ. भास्कर शेळके
डिसेंबर २०१७	१६	प्रवासवर्णन – वाङ्मयप्रकार तात्त्विक विवेचन,	वाङ्मयप्रकार तात्त्विक विवेचन, स्वरूप, व्याख्या, प्रेरणा, प्रयोजने इत्यादि. घटक अभ्यासणे.
जानेवारी २०१८	१६	प्रवासवर्णन – वाङ्मयप्रकार	प्रवासवर्णन वाङ्मयप्रकाराची व्याप्ती, वेगळेपण, वाटचाल, वैशिष्ट्ये इ.
फेब्रुवारी २०१८	१६	नेमलेले प्रवासवर्णन पुस्तक	देशविदेश – संपा. डॉ.स्नेहल तावरे, डॉ.अशोक शिंदे, डॉ. अरूण कोळेकर
मार्च २०१८	१६	नेमलेले प्रवासवर्णन पुस्तक	देशविदेश – संपा. डॉ.स्नेहल तावरे, डॉ.अशोक शिंदे, डॉ. अरूण कोळेकर

वर्ग — तृतीय वर्ष कला

विषय — भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक (एस.४)

विषय शिक्षकाचे नाव : डॉ. बाळासाहेब अनुसे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	भाषेचे स्वरूप आणि कार्य	भाषा एक सहज क्रिया, संज्ञापन : भाषेचे मुख्य कार्य
जुलै २०१७	१६	भाषेचे स्वरूप आणि काय	भाषेचा आधार, ध्वनिसंकेत : चिन्ह आणि चिन्हित, भाषा एक सामाजिक संस्था, भाषेच्या अभ्यासाची आवश्यकता, भाषाभ्यास पद्धती — वर्णनात्मक, ऐतिहासिक व तौलानिक
ऑगस्ट २०१७	१६	स्वनविज्ञान व स्वननिर्मिती	वर्णद्रियांची रचना व कार्य, स्वनविज्ञानाचे स्वरूप व स्वनिम निर्माण करणारी इंद्रिये, स्वर व व्यंजनाचे स्वरूप व प्रकार
सप्टेंबर २०१७	१६	स्वनमविचार	स्वनिम निश्चितीची तत्त्वे, विनियोग संकल्पना, स्वन, स्वनिम, स्वनांतर यांतील परस्पर संबंध
ऑक्टोबर २०१७	१६	रूपिम विचार	रूपिम तत्व, रूपिका— रूपिम आणि रूपिकांतर, परस्पर संबंध, रूपिमांचे प्रकार, प्रकृती आणि प्रत्यय यांचे वर्गीकरण, आशयबोधक रूपिम, कार्यकर रूपिम, धातू.
डिसेंबर २०१७	१६	वाक्यविचार	वाक्यविन्यास संकल्पना आणि मराठीतील वाक्यविन्यास व्यवस्था, वाक्याचे घटक
जानेवारी २०१८	१६	अर्थविचार	अर्थविन्यास व मराठीतील त्यांचे स्वरूप, अर्थ ही संकल्पना, अर्थनिश्चितीमागील भूमिका, शब्दनिष्ठ अर्थ, वाक्यनिष्ठ अर्थ
फेब्रुवारी २०१८	१६	ऐतिहासिक भाषाभ्यास पद्धती	सर विल्यम जोन्स यांचा सिद्धांत, ऐतिहासिक भाषाविज्ञानाचे स्वरूप, भाषाकुलाची संकल्पना
मार्च २०१८	१६	मराठी भाषेची उत्पत्ती	मराठी भाषेची उत्पत्ती व त्या संबंधीची साधने, मराठी उत्पत्तिसंबंधी विविध सिद्धांत, वैद्य—गुणे वाद,

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ – २०१८

विषय शिक्षकाचे नाव – प्रा. वर्षा कांबळे

अ.क्र.	वर्ग	तुकडी	विषयाचे नाव
१	प्रथम वर्ष कला	सी	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी
२	प्रथम वर्ष वाणिज्य	बी, सी, डी, इ,	मराठी (आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी)

वर्ग – प्रथम वर्ष कला

विषय – आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी

विषय शिक्षकाचे नाव – प्रा. वर्षा कांबळे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ – नेमलेला कथासंग्रह 'मराठी विनोदी कथा' –	वर्तमानपत्रकर्ता – श्री.कृ.कोल्हटकर
जुलै २०१७	१६	'मराठी विनोदी कथा' –	नाटक कसे लिहावे – राम गणेश गडकरी चिमणरावांचे वक्तृत्व – चिं.वि.जोशी पहिले कावळे संमेलन—आचार्य अत्रे म्हैस – पु.ल.देशपांडे
ऑगस्ट २०१७	१६	'मराठी विनोदी कथा' –	तक्रार – शंकर पाटील बंडू आणि अमेरिकेची कानउघाडणी – गंगाधर गाडगीळ, झोप – द.मा.मिरासदार
सप्टेंबर २०१७	१६	'मराठी विनोदी कथा' – घटक २ व्यक्तिमत्त्व विकास आणि भाषा	आचार्य अत्रे कसा झालो नाही – मुकुंद टांकसाळे पेज श्री कथा – मंगला गोडगोले व्यक्तिमत्त्व विकास संकल्पना व्यक्तिमत्त्व विकासात भाषेचे स्थान
ऑक्टोबर २०१७	१०	भाषिक कौशल्ये कार्यक्रम नियोजन कौशल्ये	लेखन, वाचन, संभाषण, श्रवण कौशल्ये सूत्रसंचालन, प्रास्ताविक, परिचय, स्वागत, मनोगत.
डिसेंबर २०१७	१६	घटक ३ नेमलेला कवितासंग्रह 'मातृपंचक'	कवितेचे स्वरूप, जन्मदात्री आई संबंधी कविता काळी आई संबंधी कविता
जानेवारी २०१८	१६	'मातृपंचक'	दैवत माऊली संबंधी कविता, मातृभाषा संबंधी कविता, मातृभूमी संबंधी कविता
फेब्रुवारी २०१८	१६	'मातृपंचक' घटक ४ व्यावहारिक मराठी	मातृभूमी संबंधी कविता वर्तमानपत्रासाठी बामती लेखन

			दृक-श्राव्य माध्यमांसाठी मुलाखत लेखन
मार्च २०१८	१२	घटक ४ व्यावहारिक मराठी	पारिभाषिक संज्ञा अशुद्ध शब्द शुद्ध करणे

वर्ग – प्रथम वर्ष वाणिज्य
विषय – मराठी (पाठ्यपुस्तक व उपयोजित मराठी)

विषय शिक्षकाचे नाव – प्रा. वर्षा कांबळे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ – व्यावहारिक आणि उपयोजित मराठी	निबंध लेखन
जुलै २०१७	१६	घटक २ – यशोगाथा पाठ्यपुस्तक	डॉ. श्रीराम लागू, लता मंगेशकर डॉ. राम ताकवले, डॉ. विजय भटकर
ऑगस्ट २०१७	१६	घटक २ – यशोगाथा पाठ्यपुस्तक	डॉ.ह.वि.सरदेसाई, डॉ.रघुनाथ माशेलकर, डॉ.बालाजी तांबे
सप्टेंबर २०१७	१६	घटक २ – यशोगाथा पाठ्यपुस्तक	सिंधुताई सपकाळ, श्री.हुकमीचंद व सौ. कमल चोरडिया,
ऑक्टोबर २०१७	१०	घटक २ – यशोगाथा पाठ्यपुस्तक	फादर फ्रान्सिस दिब्रिटो, सचिन तेंडूलकर
डिसेंबर २०१७	१६	घटक २ – उपयोजित मराठी	अर्जलेखन, टिप्पणीलेखन, निविदा लेखन
जानेवारी २०१८	१६	घटक २ – उपयोजित मराठी	इतिवृत्तलेखन, माहितीपत्रक, घोषणापत्रक जाहीर निवेदन,
फेब्रुवारी २०१८	१६	घटक २ – उपयोजित मराठी	वर्तमानपत्रासाठी बातमीलेखन, सारांशलेखन, भाषांतरलेखन
मार्च २०१८	१२	घटक २ – उपयोजित मराठी	भाषांतरलेखन मौखिक परीक्षा

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ – २०१८

विषय शिक्षकाचे नाव — प्रा.एस.व्ही.धानापुणे

अ.क्र.	वर्ग	तुकडी	विषयाचे नाव
१	प्रथम वर्ष कला	डी.	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी
२	प्रथम वर्ष वाणिज्य	एफ. जी	मराठी (पाठ्यपुस्तक व उपयोजित मराठी)

वर्ग — प्रथम वर्ष कला

विषय — आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी

विषय शिक्षकाचे नाव — प्रा. एस.व्ही.धानापुणे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ — नेमलेला कथासंग्रह 'मराठी विनोदी कथा' —	वर्तमानपत्रकर्ता — श्री.कृ.कोल्हटकर
जुलै २०१७	१६	'मराठी विनोदी कथा' —	नाटक कसे लिहावे — राम गणेश गडकरी चिमणरावांचे वक्तृत्व — चिं.वि.जोशी पहिले कावळे संमेलन—आचार्य अत्रे म्हैस — पु.ल.देशपांडे
ऑगस्ट २०१७	१६	'मराठी विनोदी कथा' —	तक्रार — शंकर पाटील बंडू आणि अमेरिकेची कानउघाडणी — गंगाधर गाडगीळ, झोप — द.मा.मिरासदार
सप्टेंबर २०१७	१६	'मराठी विनोदी कथा' — घटक २ व्यक्तिमत्त्व विकास आणि भाषा	आचार्य अत्रे कसा झालो नाही — मुकुंद टांकसाळे पेज श्री कथा — मंगला गोडगोले व्यक्तिमत्त्व विकास संकल्पना व्यक्तिमत्त्व विकासात भाषेचे स्थान
ऑक्टोबर २०१७	१०	भाषिक कौशल्ये कार्यक्रम नियोजन कौशल्ये	लेखन, वाचन, संभाषण, श्रवण कौशल्ये सूत्रसंचालन, प्रास्ताविक, परिचय, स्वागत, मनोगत.
डिसेंबर २०१७	१६	घटक ३ नेमलेला कवितासंग्रह 'मातृपंचक'	कवितेचे स्वरूप, जन्मदात्री आई संबंधी कविता काळी आई संबंधी कविता
जानेवारी २०१८	१६	'मातृपंचक'	दैवत माऊली संबंधी कविता, मातृभाषा संबंधी कविता, मातृभूमी संबंधी कविता
फेब्रुवारी २०१८	१६	'मातृपंचक' घटक ४ व्यावहारिक मराठी	मातृभूमी संबंधी कविता वर्तमानपत्रासाठी बामती लेखन

			दृक-श्राव्य माध्यमांसाठी मुलाखत लेखन
मार्च २०१८	१२	घटक ४ व्यावहारिक मराठी	पारिभाषिक संज्ञा अशुद्ध शब्द शुद्ध करणे

वर्ग — प्रथम वर्ष वाणिज्य

विषय — मराठी (पाठ्यपुस्तक व उपयोजित मराठी)

विषय शिक्षकाचे नाव — प्रा. एस.व्ही.धानापुणे

महिना	तासिका	घटक	उपघटक
जून २०१७	०६	घटक १ — व्यावहारिक आणि उपयोजित मराठी	निबंध लेखन
जुलै २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ. श्रीराम लागू, लता मंगेशकर डॉ. राम ताकवले, डॉ. विजय भटकर
ऑगस्ट २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ.ह.वि.सरदेसाई, डॉ.रघुनाथ माशेलकर, डॉ.बालाजी तांबे
सप्टेंबर २०१७	१६	घटक २ — यशोगाथा पाठ्यपुस्तक	सिंधुताई सपकाळ, श्री.हुकमीचंद व सौ. कमल चोरडिया,
ऑक्टोबर २०१७	१०	घटक २ — यशोगाथा पाठ्यपुस्तक	फादर फ्रान्सिस दिब्रिटो, सचिन तेंडूलकर
डिसेंबर २०१७	१६	घटक २ — उपयोजित मराठी	अर्जलेखन, टिप्पणीलेखन, निविदा लेखन
जानेवारी २०१८	१६	घटक २ — उपयोजित मराठी	इतिवृत्तलेखन, माहितीपत्रक, घोषणापत्रक जाहीर निवेदन,
फेब्रुवारी २०१८	१६	घटक २ — उपयोजित मराठी	वर्तमानपत्रासाठी बातमीलेखन, सारांशलेखन, भाषांतरलेखन
मार्च २०१८	१२	घटक २ — उपयोजित मराठी	भाषांतरलेखन मौखिक परीक्षा

डॉ. संजय शिंदे
मराठी विभाग प्रमुख

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology

Animal Systematics and Diversity I

(Term – I; Paper I)

Sr.No	Month	Topics Covered	Teacher
1	June	Principles of classification: Systematics-Linnaean hierarchy (Phylum, Class, Order, Family, Genus and Species), Binomial nomenclature, Five kingdom classification system	DNW
2	July	Salient features and classification upto classes of the following: (any two examples from each class) Protozoa, Porifera, Coelenterata, Platyhelminthes, Aschehelminthes, Annelida	DNW
3	Aug	Study of <i>Paramoecium</i> : Systematic position, Habit and habitat , Structure, nutrition,excretion and reproduction (binary fission and conjugation)	NAN
4	Sep	Study of Earthworm : Systematic position, Habit and habitat, External characters, Digestive system, Circulatory system, Excretory system, Reproductive system, Nervous system and sense organs, Economic importance	DNW
5	Oct	Study of Earthworm : Nervous system and sense organs, Economic importance	DNW

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology TERM I PAPER II FUNDAMENTALS OF CELL BIOLOGY

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction to cell biology: Definition and scope, Stains: Principle and composition of vital stains, cytoplasmic stains and nuclear stains with two examples of each Structure of prokaryotic (E.coli) and eukaryotic (Plant and Animal) cell	DLT
2	July	Structure and function of cell membrane: Chemical composition, Fluid mosaic model, Functions of plasma membrane. Composition of Cytoplasm	DLT
3	Aug	Study of following cell organelles with respect to structure 10 and functions in brief: Endoplasmic reticulum, Golgi complex, Lysosomes, peroxisomes and glyoxysomes, Ribosomes, Mitochondria	DLT
4	Sep	Nucleus: Shape, size, number and position, Ultrastructure of nuclear envelope and pore complex, Functions	DLT
5	Oct	Cell division and their significance: Cell cycle in brief, Mitosis, Meiosis	DLT

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology

ANIMAL SYSTEMATICS AND DIVERSITY – II

(Term – II; Paper I)

Sr. No	Month	Topics Covered	Teacher
1	Nov	Salient features and classification upto order with one example of the following: Hemichordata, Urochordata, Cephalochordata	DNW
2	Dec	Salient features of following classes with two examples of each Pisces- Cartilaginous and Bony fishes, Amphibia- Apoda, Urodela and Anura	NAN
3	Jan	Study of Frog: Systematic position, Habit and habitat, External characters and sexual dimorphism, Digestive system, food, feeding and physiology of digestion, Circulatory system, Central Nervous system, Sense organs, Reproductive systems (male & female).	NAN
4	Feb	General topics: Migration in fishes, Neoteny in amphibian, Parental care in amphibia	SBP

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology

GENETICS (Term – II; Paper II)

Sr. No	Month	Topics Covered	Teacher
1	Nov	Introduction to genetics: Mendelian inheritance: laws of heredity and their practical application, Test cross and Back cross Gene Interaction: Concept of gene interaction, co-dominance and incomplete dominance, Complementary factors (9:7), Supplementary Factors (9: 3:4), Inhibitory factors (13:3), Duplicate dominant factors (15:1)	DNB
2	Dec	Lethal genes in Mus musculus Multiple Alleles: Concept, characteristics and importance of multiples alleles, ABO & Rh-blood group system and it's medicolegal importance, Concept of polygenic inheritance with reference to skin color in man Chromosomes: Introduction to morphology and composition, Classification based on the centromeric position, Types of chromosome (autosomes and sex chromosome), Chromosomal aberrations: structural changes	DNB
3	Jan	Sex-determination: Introduction, Chromosomal theory of sex determination (XX-XY, ZZ-ZW, XXXO and Haploid-Diploid method), Parthenogenesis and Gynandromorphism Human genetics: Study of human karyotype, Syndromes: a) Autosomal-Down's (Mongolism), Patau's, Edward's and Cri-du-chat b) Sex chromosomal abnormalities in man: Klinefelter's and Turner's syndrome. Inborn errors of metabolism: albinism, phenylketonuria and alkaptonuria	DNB
4	Feb	Sex linked inheritance in human: Colorblindness, haemophilia and hypertrichosis Cytoplasmic inheritance: Kappa particles in Paramoecium Application of genetics: Genetic counseling. Concept of genetic Engineering, Eugenics	DNB

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)

Term I PAPER I ANIMAL SYSTEMATICS AND DIVERSITY -III

Sr.No	Month	Topics Covered	Teacher
1	June	Salient features and classification upto classes of the following: Arthropoda :- Crustacea, Arachnida, Insecta, Myriapoda, Onychophora. Mollusca:- Aplacophora, Gastropoda, Pelecypoda, Scaphopoda, Cephalopoda.	SSP
2	July	Echinodermata:- Asteroidea, Ophuroidea, Holothuria, Echinoidea, Crinoidea Study of following with reference to: Arthropoda:- Mouthparts in Insects, Metamorphosis in Insects, Mimicry in Insects, Economic importance of Insects, Larval forms in Crustacea	SSP
3	Aug	Mollusca:- Economic importance of mollusc, Shell and foot modification in mollusc, Torsion and Detorsion in mollusc, Larval forms in molluscs. Echinodermata:- Origin of Echinodermata, Types of Pedicellariae, Larval forms in Echinodermata.	DNB
4	Sep	Study of Starfish : Systematic position, Habit and habitat, External characters, Digestive system, Water vascular system	DNB
5	Oct	Reproductive system, Autotomy and regeneration	DNB

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)

Term I PAPER II APPLIED ZOOLOGY – I

Sr.No	Month	Topics Covered	Teacher
1	June	Fisheries : An introduction to fisheries and its types (in brief) : Freshwater fisheries, Marine fisheries, Brackish water fisheries. Different types of ponds used in fishery : Nursery pond, Rearing pond, Stock pond, Habit, habitat and culture methods of following freshwater forms : Rohu (<i>Labeo rohita</i>), Catla (<i>Catla catla</i>), Mrigal (<i>Cirrhinus mrigala</i>), Giant prawn (<i>Macrobrachium rosenbergi</i>)	DLT
2	July	Harvesting methods of following marine forms : Harpadon, Mackerel, Lobster, Pearl oyster Crafts and gears in Indian Fishery : Crafts – Catamaran, Machwa, Dinghy, Dug out canoe, Built –up boat Gears – Gill net, Dol net, Purse net, Rampani net, Cast net Fishery byproducts : Fish meal, Fish flour, Liver oil, Ising glass, Fish glue, Fish manure, Fish fin soup, Fish preservation technique : Chilling, Freezing, Salting, Drying, Canning.	DLT
3	Aug	Agricultural Pests and their control : An introduction to Pest, types of pests (agricultural, household, stored grain, structural, veterinary, forestry and nursery) Major insect pests of agricultural importance (Marks of identification, life cycle, nature of damage and control measures) a) Jowar stem borer, b) Red cotton bug, c) Brinjal fruit borer, d) Mango stem borer, e) Pulse beetle, f) Rice weevil.	DNW, NAN
4	Sep	Non insect pest : Rats and Bandicoots, Crabs, Snails, Slugs, Birds and Squirrels Pest control practices in brief : Cultural control, Physical control, Mechanical control, Chemical control, Biological control, Pheromonal control and Concept of IPM in brief	SBP
5	Oct	Plant protection appliances : Rotary duster, Knapsack sprayer, Cynogas Pump. Hazards of pesticides on human and antidotes.	DNW, NAN

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)

Term II PAPER I ANIMAL SYSTEMATICS AND DIVERSITY – IV

Sr.No	Month	Topics Covered	Teacher
1	Nov	Salient features of following classes and its subclasses with two examples of each: Reptilia, Aves, Mammalia	SSP
2	Dec	General topics: Poisonous and non-poisonous snakes (Two examples each), Desert adaptations in reptiles in brief. Beak and feet modifications in birds Migration in birds, Aerial adaptations in birds, Egg laying mammals, Aquatic mammals.	SSP
3	Jan	Study of Scoliodon : Systematic position, Habit and habitat, External characters Digestive system, food, feeding and physiology of digestion Respiratory system.	DNB
4	Feb	Blood vascular system. Nervous system and sense organs. Male urinogenital system and female reproductive system	DNB
			DNB

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)

Term II PAPER II APPLIED ZOOLOGY – II

Sr.No	Month	Topics Covered	Teacher
1	Nov	Apiculture : An introduction to Apiculture, Study of habit, habitat and nesting behavior of <i>Apis dorsata</i> , <i>Apis indica</i> , <i>Apis florae</i> and <i>Apis mellifera</i> . Life cycle, Colony organization and division of labour, Polymorphism. Bee behaviour and bee communication.	DLT
2	Dec	Bee keeping equipments : a) Bee box (Langstroth type) b) Honey extractor, c) Smoker d) Bee-veil e) Gloves f) Hive tool g) Bee Brush h) Queen excluder . Bee keeping and seasonal management. Bee products (collection methods, composition and uses: a) Honey b) Wax c) Bee Venom d) Propolis e) Royal jelly f) Pollen grains Diseases and enemies of Bees: a) Bee diseases – Protozoan, Bacterial, Viral, Fungal – with two examples. b) Bee pests – Wax moth (Greater and Lesser), Wax beetle. c) Bee Enemies – Bee eater, King crow, Wasp, Lizard, Bear, Man. Bee pollination	DLT
3	Jan	Sericulture : An introduction to sericulture, Study of different types of silkworms, their distribution and varieties of silk produced by Mulberry, Tassar, Eri and Muga silkworms in India. External morphology and life cycle of <i>Bombyx mori</i> . Cultivation of mulberry (moriculture): a) Varieties for cultivation, b) Rainfed and irrigated mulberry cultivation – Fertilize schedule, Pruning methods and leaf yield. Harvesting of mulberry: a) Leaf plucking b) Branch cutting c) Whole shoot cutting. Silk worm rearing: a) Types of rearing b) Rearing house c) Rearing techniques d) Important diseases and pests.	SBP
4	Feb	Post harvest processing of cocoons: a) Harvesting and Preparation of cocoons for marketing, b) Stiffling, Sorting, Storage, Deflossing and Riddling, c) Cocoon cooking, Reeling Equipment and Rereeling, Washing and Polishing.	SBP

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER I Animal Systematics and Diversity- V

Sr.No	Month	Topics Covered	Teacher
1	June	Study of Pila globosa with reference to the following: Systematic position, habit, habitat and external characters. Body wall & pallial complex. Functional anatomy: digestive, respiratory, circulatory, excretory, reproductive, nervous system & sense organs	DNB
2	July	Study of the following groups with reference to: Protozoa : locomotion & nutrition. Porifera : skeleton and canal system, Coelenterata : polymorphism and corals. Hemichordata : affinities	DNB
3	Aug	Study of Calotes versicolor with reference to the following : Systematic position, habit, habitat and External characters. Functional Anatomy - Digestive, Circulatory, Excretory, Reproductive, Nervous system and Sense organs	DNB
4	Sep	Comparative study of following topics in vertebrates Integument: Skin of Scoliodon, Frog, Calotes, Pigeon & Rat Heart: Structure of heart of Scoliodon, Frog, Calotes, Pigeon & Rat Kidney: Evolution of Archinephros, Pronephros, Mesonephros, Metanephros Brain: Morphological variation in the different regions of the brain of Scoliodon, Frog, Calotes, Pigeon and Rat/Rabbit	DNB
5	Oct	Study of following groups with reference to Pisces : Dipnoi, Accessory respiratory organs , Electric organs Reptilia : Temporal vacuities, General characters of Rhynchocephalia Mammalia : Dentition in mammals	DNB

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER II Mammalian Histology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction Definition and scope Tissues: Definitions and review of tissues (location, structure and functions) epithelial, connective, nervous and muscular	SSP
2	July	Histological study of following organs Skin (V.S.) , Tooth (V.S.) , Tongue (C.S.) with reference to mucosa papillae and taste buds Alimentary canal: Basic histological organization with reference to: Oesophagus (T.S.), stomach (T.S.), duodenum (T.S.) Ileum (T.S.) and rectum (T.S.)	SBP
3	Aug	Glands associated with digestive system: Salivary glands – parotid (C.S.), submandibular (C.S.) sublingual(C.S.), liver(C.S.) and pancreas (C.S.) including both exocrine and endocrine components Respiratory organs: Trachea (T.S.) and lung (C.S.) Blood vessels: Artery (T.S.), vein (T.S.) and capillaries (T.S.) Kidney (L.S.), Structure of nephron and juxtaglomerular complex	SSP
4	Sep	Reproductive organs: a) Testis (T.S.) with reference to Seminiferous Tubules and cells of Leydig b) Ovary (C.S.) - primary, secondary and matured (Graffian) follicle, corpus luteum and corpus albicans	SSP
5	Oct	Histology of endocrine glands : Pituitary gland, Thyroid gland, Adrenal gland	SSP

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER III Biological chemistry

Sr.No	Month	Topics Covered	Teacher
1	June	Basic Biochemistry: Bonds –Types: Ionic, covalent, noncovalent bonds (hydrogen, hydrophobic, electrostatic, Van der Waal forces) and their functions in bio molecules. Structure of water molecule (liquid, ice and colloid). Physico-chemical properties of water. Concept of acid and base, pH, Sorenson's scale, derivation of Henderson Hasselbalch equation and its applications. Concept of Buffer-types of buffer, buffering capacity and buffers in biological system (Phosphate, bicarbonate)	NAN
2	July	Carbohydrates: Definition and classification of carbohydrates. Isomerism in carbohydrates- Structural and stereoisomerism. Stereo chemical properties-enantiomeres, anomers, epimerism, mutarotation, racemisation, biological significance and clinical significance- hypoglycemia and hyperglycemia.	NAN
3	Aug	Proteins: Essential and non essential amino acids. Structure and classification of amino acids, Peptide bond, types of proteins, protein structures (primary, secondary, tertiary and quaternary structures with suitable example), bonds responsible for protein structures and Biological significance of proteins	NAN
4	Sep	Enzymes: Classification and properties of enzymes. Regulatory and non regulatory enzymes. Enzyme kinetics, MM equation and its importance and LB plot. Reversible and irreversible enzyme inhibition. Factors influencing enzyme activity (pH, temperature, substrate concentration, enzyme concentration). Introduction of isoenzymes, allosteric enzymes, immobilized enzymes and ribozymes. Clinical significance of enzymes- PKU and AKU	NAN
5	Oct	Lipids: Introduction, classification and chemistry Clinical significance (obesity, atherosclerosis, myocardial infarction) Biological significance of lipids	NAN

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)

Term I PAPER IV

Environmental Biology and Toxicology

Sr.No	Month	Topics Covered	Teacher
1	June	Environmental Biology Introduction- Definition, basic concepts and scope The Ecosystem Definition, abiotic and biotic components and their interrelationship, Energy flow in ecosystem and flow models Major Ecosystems: (a) natural ecosystem: e.g. fresh water, forest (b) artificial ecosystem: e.g. cropland, Food chain in ecosystem and food web, Ecological pyramids	DLT
2	July	Environmental Pollution: Definition and types of pollution, Pollutants, types of pollutants (metallic, gaseous, acids, alkalis, biocides) Air pollution: Definition, sources of air pollution and their effects, Air pollution and its relevance with the following, Acid rain Greenhouse effect, Ozone layer depletion, Water pollution: definition, sources of water pollution and their effects on ecosystem. Community waste with reference to following: Sewage, Industrial wastes, Agricultural wastes, Land / Soil pollution: definition, sources of land / soil pollution and their effects, Noise pollution: definition, sources of noise pollution and their effects and control measures	DNB
3	Aug	Environment and Development Bioindicators and environmental monitoring, Environmental challenges in India: land degradation, population explosion, urbanization and industrialization Natural Resources and Conservation: Renewable and non-renewable resources, Soil conservation, Forest conservation, Energy sources: conventional and non-conventional	SSP
4	Sep	Wildlife Management: Definition, causes of wildlife depletion, Importance of wildlife management in India, Endangered species, vulnerable species, rare species and threatened species, Wild life conservation Toxicants and Toxicity: Definition of toxicology, scope and branches, Types of toxicants Factors influencing toxicity (pH, temperature, reproductive status, age, physiological state), Dose, LD50, LC50	NAN
5	Oct	Toxicants of Public Health and Hazards: Pesticides, heavy metals, fertilizers, food additives and radioactive substances	DNW

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER V Parasitology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction: Scope and branches of Parasitology Definition: host, parasite, vector, commensalisms, mutualism and parasitism Types of parasites: ectoparasites, endoparasites and their subtypes 3	DNW
2	July	Types of hosts: intermediate and definitive, paratenic, reservoir Host-Parasite relationship: Host specificity- definition, structural specificity, physiological specificity and ecological specificity Study of the following parasites with reference to habit, habitat, Life cycle, Mode of Infection, pathogenicity and control measures - Plasmodium vivax, Entamoeba histolytica,	DNW
3	Aug	Ascaris lumbricoides and Taenia solium Study of the following parasites with reference to morphology, life cycle, pathogenicity and control measures: Head louse, Tick, Mite (Sarcoptes scabiei) Parasitological significance of Zoonosis: Bird flu, Rabies and Toxoplasmosis	DNW
4	Sep	Control measures of arthropod vectors of human diseases: Malaria (Anopheles stephensi, A. culicifacies), Dengue, Haemorrhagic fever (Aedes aegypti, A. albopictus), Filariasis (Culex pipiens fatigans)	DNW
5	Oct	Epidemic diseases: Typhoid, Cholera, Small pox; their occurrence and eradication programmes	DNW

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)

Term I PAPER VI

b) Cell Biology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction to Cell biology: Definition and scope, Prokaryotic and eukaryotic cell: size, shape and structure. Plasma membrane: Unit membrane concept, Models: Lipid membrane, Protein-Lipid (Danielli-Davson) and Fluid Mosaic, Membrane receptors, Membrane transport: Passive and Active Exocytosis and Endocytosis (Phagocytosis and Pinocytosis)	DLT
2	July	Endoplasmic reticulum: Occurrence and ultrastructure, Type: smooth and rough, Functions Golgi complex: Origin, occurrence and morphology, Ultrastructure and functions	DLT
3	Aug	Lysosomes: Origin, occurrence and morphology, Ultrastructure, polymorphism and functions Mitochondria: Origin, occurrence and morphology, Ultrastructure and functions (explanation of the cycles not expected)	DLT
4	Sep	Nucleus: Shape, Size, number and position, Ultrastructure of nuclear membrane and pore complex, Nucleolus: general organization, chemical composition and functions, Nuclear sap/ nuclear matrix Nucleocytoplasmic interactions Cytoskeleton: Microfilaments: location, ultrastructure, biochemical composition and functions, Intermediate Filament: location, ultrastructure, biochemical composition and functions, Microtubules: location, ultrastructure, biochemical composition and functions Cell cycle and cell division: Various phases of cell cycle, mitosis, meiosis & role of centriole in the cell division	DLT

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER I Biological Techniques

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction to biological techniques Solution/strengths of chemicals: percentage, normality, molarity, molality, osmolarity, osmolality, ppm, ppb, Separation techniques: principle and applications, techniques related to isolation, purification and characterization of bio molecules Chromatography (paper, ion-exchange), gel filtration Electrophoresis-(agarose, polyacrylamide), Ultracentrifugation Colorimetry and spectroscopy Haematological Techniques: Blood cell count –Total count of RBCs, WBCs and Differential count of WBCs and their significance. Examination of bone marrow. Hb%, bleeding time, clotting time and their significance	DNW
2	Dec	Microscopy: simple, compound, phase contrast, electron – their principle & working Micrometry Camera Lucida Micro technique: Procurement of tissues and precautions to be taken to avoid tissue damage during procurement, Fixatives: Classification of fixatives and importance of fixation of tissues, Methods of fixation, Dehydration, clearing, impregnation and block making: Clearing and alcoholising agents, Clearing and dealcoholisation, Impregnation and Embedding: Types of embedding media, methods of embedding and block making. Comments on hardening of paraffin Microtomes and Knives: Types of microtomes, Types of microtome knives	DNW
3	Jan	Section cutting: Microtomy- steps and precautions, common faults in section cutting reasons & remedies. Mounting and spreading of ribbons Stains and Staining Classification of stains, Methods and types of staining, General procedure for staining of sections, Vital Stains, Mounting and labeling of sections: Classification of mounting media, refractive indices of mounting media	DNW
4	Feb	Histochemical staining: Demonstration Carbohydrates (PAS technique), Demonstration of Nucleic acid (Feulgen Reaction)	DNW

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER II Mammalian Physiology & Endocrinology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction: Definition and scope 1 Nutrition: Concept of nutrition and energy requirements, Physiology of digestion: digestive enzymes and their actions- salivary, gastric and intestinal digestion. Role of liver and pancreas in digestion Circulation : Cardiac Cycle- systole, diastole and pacemakers, Cardiac output and blood pressure, Definitions and significance of electrocardiogram, colour doppler, angioplasty, angiography, angina pectoris, and coronary bypass	DLT
2	Dec	Respiration: Definition and types- Pulmonary and tissue respiration, Mechanism of transport of gases (a) Transport of Oxygen- Oxyhaemoglobin formation, (b) Transport of Carbon-dioxide, (c) Respiratory Quotient and BMR Excretion: Physiology of Urine formation- ultrafiltration, reabsorption, tubular secretion, Counter-Current Multiplier theory for urine concentration Role of ADH, and Renin angiotensin system, Definitions and clinical significance of- renal failure, renal calculi, dialysis	DLT
3	Jan	Muscles: Ultrastructure of striated muscle, Sliding filament theory of muscle contraction – physical and chemical changes, Response of muscles to stimulation- simple muscle twitch, muscle fatigue and rigor mortis Nervous Excitation: Origin and conduction of nerve impulse, saltatory conduction, Synapse- ultrastructure and transmission of nerve impulse Definitions/concepts: impulse, stimulation, conduction, response, EEG, epilepsy	DLT
4	Feb	Reproduction: Reproductive cycles with hormonal control- estrous and menstrual, Hormonal control of pregnancy, Hormonal control of parturition and lactation, Hormonal control of male reproduction Endocrinology: Introduction, Mechanism of hormone action, Endocrine disorders: gigantism, acromegaly, dwarfism, diabetes insipidus, goiter, cretinism, myxedema, rickets, Addison Disease, Cushing's syndrome	DLT

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER III Genetics and Molecular Biology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Linkage, crossing over and molecular basis of recombination 5 Gene Mutation Definition, Types of mutations: spontaneous, induced, somatic, gametic, forward, reverse. Types of point mutation- deletion, insertion, substitution, transversion, transition, Mutagenic agents. a) UV radiation and ionising radiation, b) Base analogs, alkylating and intercalating agents	DNB
2	Dec	Population Genetics Basic Concepts in population genetics: Mendelian population, gene pool, gene frequency, chance mating (Panmictic mating), Hardy Weinberg law and its equilibrium, Molecular Biology, DNA as genetic material- evidences (Griffith's, Avery et al and Hershey and Chase experiment), RNA as genetic material-TMV, Chromatin-Heterochromatin, Euchromatin, histones, nucleosome arrangement, packaging of DNA	DNB
3	Jan	Central Dogma of Molecular Biology DNA Replication-Semiconservative (Messelson and Stahl experiment) Mechanism in prokaryotes and eukaryotes Transcription- Transcriptional unit, RNA polymerase, transcription in prokaryotes and eukaryotes, post transcriptional modification (splicing- mRNA, modifications at 3' and 5' end), Translation- Genetic code, properties of genetic code, ribosome structure [prokaryotes and eukaryotes], protein synthesis—initiation, elongation, termination and concept of post translational modification (glycosylation), Concept of operon - regulation of gene action, Lac operon, Trp operon	DNB
4	Feb	Recombinant DNA Technology- Introduction, restriction enzymes, cloning vector, PCR (polymerase chain reaction), DNA finger printing	DNB

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER IV Organic Evolution

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction. Origin of life, Origin of eukaryotic cell (Origin of mitochondria , plastids & symbionts). Evidences in favour of organic evolution: Evidences from: anatomy, embryology, geographical distribution, palaentology, physiology, biochemistry, genetics and molecular biology	NAN
2	Dec	Theories of organic evolution Lamarckism, Darwinism and Neo Darwinism, Mutation Theory, Modern Synthetic theory. Isolation: Isolating mechanism, Classification of isolating mechanism: Pre-zygotic and post-zygotic Speciation: Types of speciation(Allopatric & Sympatric), Mechanism of speciation Patterns of speciation, Factors influencing speciation	NAN
3	Jan	Geological Time Scale Animal Distribution: Methods of distribution, Classification of animal distribution, Patterns of animal distribution, Factors affecting distribution Antiquity of Man: Evolution of anthropoids including man (Kenyapithecus to Homo sapiens)	NAN
4	Feb	Zoogeographical Realms: With reference to fauna	NAN

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER V General Embryology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction: Definition and scope, Theories of preformation, pangenesis, epigenesis, axial gradient and germ plasm Concepts in Developmental Biology: Growth, differentiation, dedifferentiation, cell determination, cell communication, morphogenesis, induction and regeneration Gametogenesis: General aspects and origin of germ cells, Sperm: general structure, mention variations with reference to Insect, Amphioxus, Frog, Bird and Human, Ultra structure of typical sperm. (entire, T.S. through head, middle piece and tail), Spermatogenesis: phases & spermiogenesis (nuclear and cytoplasmic changes), Oogenesis phases: growth phase- pre-vitellogenesis, vitellogenesis and post vitellogenesis	SSP
2	Dec	Oocyte maturation: role of MPF (maturation promotion factor) Ovum: general structure, Egg membranes: primary, secondary and tertiary, Types of eggs Fertilization: Concept and types, Attraction of gametes: sperm activation, chemotaxis (fertilizin and antifertilizin as enzymes and gamones as hormones), Sperm penetration: acrosome reaction, capacitation & decapacitation, Activation of ovum: fertilization cone, polyspermy prevention: fast block, (fertilization potential) & slow block (cortical reaction) & perivitelline space, fertilization membrane Amphimixis, Significance of fertilization	SSP
3	Jan	Cleavage Mechanism, Planes and symmetry, Patterns / Types Significance Blastula: Definition and types Gastrulation: Concept, Basic cell movements in gastrulation: epiboly, emboly, convergence, invagination, ingression & involution (with reference to frog), Organizer: primary, secondary, tertiary Organogenesis: cell differentiation, tissue differentiation & organ formation up to rudimentary stage	SSP
4	Feb	Chick Embryology: Structure of Hen's egg, Fertilization and cleavage, Gastrulation: Formation of primitive endoderm, Primitive streak development, Head process and regression of Primitive streak,	SSP

Teaching Plan

2017 - 2018

		Development of nervous system up to 48 hours, Development of heart and blood vessels up to 48 hours, Development of digestive system Extra embryonic membranes	
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T. Y. B. Sc. (Zoology)

Term II PAPER VI

b) Medical Entomology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Fundamentals of Agricultural, Forest, Medical and Veterinary Entomology Introduction to medical entomology Morphology and anatomy of insects, Veterinary entomology- Insects as disease spreading agents in general	DLT
2	Dec	Insects as social groups- Definition, intraspecific and interspecific relationships among insects Social organization in wasps and termites, Significance of social organizations	DLT
3	Jan	House hold insects in relation to human- Cockroach, House cricket, Silver fish, Carpet beetles, Furniture beetles, Ants. Study of following insects as causing agents of human diseases- their classification up to family, appearance, habit, brief life history, distribution, diseases caused and control measures- Mosquito, Flea, House fly, Bed bug	DLT
4	Feb	Louse, Tick, Mite, Blister beetle	DLT

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Modern Operating Environment and MS-Office

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction To Computers Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer Applications of Computer in Various fields	06
		UNIT 2 Structure and Working Of Computer Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	04
2	August	UNIT 3 Input/Output Devices Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy- wheel, Inkjet, Laser, Line printers and Plotters.	05
		UNIT 4 Computer Memory Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM,	06

		PROM, EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	
3	August	Computer Language and Software :Algorithm, flowcharts, Machine language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software.	05
4	August And September	Operating System :Operating system, Evolution of operating system. Function of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and features of LINUX OS.	06
5		Networking : Concept, Basic elements of a Communication System, Data transmission media, Topologies, LAN, MAN, WAN, Internet	03
6		MS-OFFICE : Introduction to Ms-office, Components and features. MS-Word – Creating letter, table , fonts , page layout document formatting spell check, print preview, template, colour, mail merge, auto text, inserting picture , word art. MS-EXCEL – Introduction to Excel , Sorting , Queries, Graphs , Scientific functions. Power Point :- Introduction to Power Point Creation of Slides , Inserting pictures , Preparing slide show with animation. MS-ACCESS - Creation and Manipulation of Files.	12

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Principles of Programming and Algorithms

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction Concept: problem solving, algorithm Program development cycle Characteristics of an algorithm Time complexity: Big-Oh notation Flowcharts Simple Examples: Algorithms and flowcharts	05
2	July August	UNIT 2 Simple Arithmetic Problems Addition / Multiplication of integers Determining if a number is +ve / -ve / even / odd Maximum of 2 numbers, 3 numbers Sum of first n numbers, given n numbers Integer division, Digit reversing, Table generation for n, ab Factorial, sine series, cosine series, nCr , Pascal Triangle Prime number, Factors of a number Other problems such as Perfect number, GCD of 2 numbers etc (Write algorithms and draw flowcharts)	13
3		UNIT 3 Recursion Concept Multiplication Factorial Ackerman function Fibonacci series Permutation Generation	08

4	August September	UNIT 4 Algorithms using arrays Maximum and minimum of array, reversing elements of an array Mean and Median of n numbers Row major and Column major form of array representation Matrices: Addition, Multiplication, Transpose, Symmetry, upper/lower triangular	08
5		UNIT 5 Sorting and Searching Insertion sort Bubble sort Selection sort Quick sort (Recursive) Merge sort Radix Sort Bucket Sort Counting Sort Sequential and Binary search (Performance Analysis for space requirement and speed using Big-Oh notation is essential)	13

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Principles of Management

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Nature Of Management Meaning, Definition, Nature, Importance & Functions Management an Art, Science & Profession- Management as social System Concept of Management-Administration- Organization-Universality of management	08
2		UNIT 2 Evolution Of Management Thoughts Contribution of F.W.Taylor, Henri Fayol, Elton Mayo	08
3		UNIT 3 Functions Of Management Part -I Planning –Meaning –Need & Importance, types levels –advantages & limitations; Forecasting- Need & Techniques; Decision making – Types - Process of rational decision making & techniques of decision making. Organizing – Elements of organizing & process Types of organizations, Delegation of authority – Need, difficulties in	08

		delegation – Decentralization. Staffing – Meaning & importance	
4	August	UNIT 4 Functions Of Management Part -II Direction - Nature – Principles Motivation - Importance – Theories Leadership – Meaning - qualities of effective Leadership & functions of leader Co-ordination - Need – Importance Controlling – Need, nature, Importance, Process & techniques	08
5	September	UNIT 5 Strategic Management Definition, Classes of Decisions Levels of Decisions Strategy Role of Strategic Management and its benefits Strategic Management in India	08
		UNIT 6 Recent Trends In Management Management of change Disaster Management Total Quality Management Stress Management Social Responsibility of management	08

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Data Structure using 'C'

Subject Teacher: Prof. V. R. Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July August	UNIT 1 Introduction to data structure Pointers and dynamic memory allocation Algorithm-Definition and characteristics Algorithm Analysis -Space Complexity -Time Complexity -Asymptotic Notation Introduction to Data structure Types of Data structure Abstract Data Types (ADT) Introduction to Arrays and Structure Types of array and Representation of array Polynomial - Polynomial Representation - Evaluation of Polynomial - Addition of Polynomial Self Referential Structure	09
2		UNIT 2 Searching and Sorting Techniques Linear Search Binary Search(Recursive , Non-Recursive) Bubble Sort Insertion Sort Selection Sort Quick Sort Heap Sort (No Implementation) Merge Sort Analysis of all Sorting Techniques	09
3	August	UNIT 3 Linked List	10

		Introduction Static & Dynamic Representation Types of linked List - Singly Linked list(All type of operation) - Doubly Linked list (Create , Display) - Circularly Singly Linked list (Create, Display) Circularly Doubly Linked list (Create, Display)	
4	September	UNIT 4 Stack and Queue Introduction stack Static and Dynamic Representation Primitive Operations on stack Application of Stack Evaluation of postfix and prefix expression Conversion of expressions- Infix to prefix & Infix to postfix Introduction queue Static and Dynamic Representation Primitive Operations on Queue Application of Queue Type of Queue Circular Queue De Queue Priority Queue	09
5		UNIT 5 Trees Introduction & Definitions Terminology Static and Dynamic Representation Types of tree Operations on Binary Tree & Binary Search Tree Tree Traversal Inorder, Preorder, Postorder (Recursive & Iterative) .AVL Tree	07
6	October	UNIT 6 Graphs Representation -Adjacency Matrix -List In degree , out degree of graph Graph operation DFS , BFS Spanning Tree	04

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Relational Database Management System

Subject Teacher: Prof. V. A. Sandbhor.

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July August	UNIT 1 Introduction To RDBMS Introduction to popular RDBMS product and their features Difference Between DBMS and RDBMS Relationship among application programs and RDBMS	02
2		UNIT 2 PLSQL Overview of PLSQL Data Types PLSQL Block % type, % rowtype Operators, Functions, comparison, numeric, character, date Control Statement Exception Handling Predefined User defined exceptions Functions , Procedures Cursor Definition Types of cursor- implicit, explicit (attributes) Parameterized cursor Trigger Package	20

3	August	UNIT 3 Transaction Management Transaction Concept Transaction Properties Transaction States Concurrent Execution Serializability Conflict Serializability View Serializability Recoverability Recoverable Schedule Cascadless Schedule	10
4	September	UNIT 4 Concurrency Control Lock Based Protocol Locks Granting of Locks Two Phase Locking Protocol Timestamp Based Protocol Timestamp Timestamp ordering protocol Thomas's Write Rule Validation Based Protocol Deadlock Handling Deadlock Prevention Deadlock Detection Deadlock Recovery	08
5		UNIT 5 Recovery System Failure Classification Transaction Failure System Crash Disk Failure Storage Structures Storage Types Data Access Recovery & Atomicity Log based Recovery Deferred Database Modification Immediate Database Modification Checkpoints Recovery with Concurrent Transaction Transaction Rollback Restart Recovery Remote Backup System	08

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Introduction to Operating System

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction to Operating System What is operating system Computer system architecture Services provided by OS Types of OS	02
		UNIT 2 System Structure User operating system Interface System Calls Process or job control Device Management File Management System Program Operating System Structure	02
		UNIT 3 Process Management What is Process Process State Process Control Block Context Switch Operation on Process Process Creation Process Termination	03
		UNIT 4	

	July and August	CPU Scheduling What is scheduling Scheduling Concepts CPU- I/O Burst Cycle CPU Scheduler Preemptive and Non-preemptive scheduling Dispatcher Scheduling criteria (Terminologies used in scheduling) Scheduling Algorithms FCFS SJF (Preemptive & non-preemptive) Priority Scheduling (Preemptive & Nonpreemptive) Round Robin Scheduling Multilevel Queues Multilevel Feedback queues	08
2	August	UNIT 5 Process Synchronization Introduction Critical section problem Semaphores Concept Implementation Deadlock & Starvation Binary Semaphores Critical Sections Classical Problems of synchronization Bounded buffer problem Readers & writers problem Dining Philosophers problem	06
		UNIT 6 Deadlock Introduction Deadlock Characterization Necessary Condition Resource allocation graph Deadlock Prevention Deadlock Avoidance Safe State Resource allocation graph algorithm Bankers algorithm Deadlock Detection Recovery from deadlock	07

	September	Process Termination Resource Preemption	
		UNIT 7 Memory Management Introduction to memory management Address Binding Dynamic Loading Dynamic Linking Overlays Logical vs. physical addresses Swapping Contiguous memory allocation Single Partition Allocation Multiple Partition Allocation External and Internal Fragmentation Paging Segmentation Segmentation with paging Virtual memory Demand paging Page replacement algorithms FIFO MRU LRU LRU approximation using reference bit MFU LFU Second Chance algorithm Optimal replacement	08
	September	UNIT 8 File System Introduction & File concepts (file attributes, Operations on files) Access methods Sequential access Direct access File structure Allocation methods Contiguous allocation Linked Allocation Indexed Allocation 8.4 Free Space Management Bit Vector Linked List	07

		Grouping Counting	
	September And October	UNIT 9 I/O System Introduction I/O Hardware Application of I/O Interface Kernel I/O Subsystem Disk Scheduling FCFS Shortest Seek time first SCAN C- SCAN C- Look	05

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Software Engineering

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction to System Concepts Definition , Elements of System Characteristics of System Types of System System Concepts	02
		UNIT 2 Requirement Analysis Definition of System Analysis Requirement Anticipation Knowledge and Qualities of System Analyst Role of a System Analyst Feasibility Study And It's Types Fact Gathering Techniques SRS(System Requirement Specification)	06
		UNIT 3 Introduction to Software Engineering Definition Need for software Engineering Software Characteristics Software Qualities (McCall's Quality Factors	04
2	August	UNIT 4 Software Development methodologies SDLC (System Development Life Cycle) Waterfall Model Spiral Model	06

		Prototyping Model RAD MODEL	
		UNIT 5 Analysis and Design Tools Entity-Relationship Diagrams Decision Tree and Decision Table Data Flow Diagrams (DFD) Data Dictionary Elements of DD Advantage of DD Pseudo code Input And Output Design CASE STUDIES (Based on Above Topic)	10
3	September	UNIT 6 Structured System Design Modules Concepts and Types of Modules Structured Chart Qualities of Good Design Coupling, Types of Coupling Cohesion, Types of Cohesion	06
		UNIT 7 Software Testing Definition, Test characteristics Types of testing Black-Box Testing White-Box Testing Unit testing Integration testing Validation Verification	06

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject :Java Programming

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction to Java Features of java JDK Environment & tools like(java, javac, appletviewer, javadoc, jdb) OOps Concepts Class, Abstraction , Encapsulation, Inheritance, Polymorphism Difference between C++ and JAVA Structure of java program Data types ,Variables ,Operators , Keywords ,Naming Convention Decision Making (if, switch), Looping(for, while) Type Casting Array Creating an array Types of Array One Dimensional arrays Two Dimensional array String - Arrays , Methods. - StringBuffer class	08
2	July and	UNIT 2 Classes and Objects Creating Classes and objects Memory allocation for objects Constructor Implementation of Inheritance Simple, Multilevel, Interfaces	10

	August	Abstract classes and methods Implementation of Polymorphism Method Overloading, Method Overriding Nested and Inner classes. Modifiers and Access Control Packages Packages Concept Creating user defined packages Java Built in packages java.lang->math java.util->Random, Date, Hashtable Wrapper classes	
3	August	UNIT 3 Collection Collection Framework. Interfaces Collection List Set SortedSet Enumeration Iterator ListIterator . Classes - LinkedList - ArrayList - Vector - HashSet - TreeSet - Hashtable Working with maps Map interface Map classes - HashMap	06
4	September	UNIT 4 File and Exception Handling Exception Exception types Using try catch and multiple catch Nested try, throw , throws and finally Creating user defined Exceptions File Handling Stream ByteStream Classes CharacterStream Classes	08

		File IO basics File operations Creating file Reading file(character, byte) Writing file (character, byte)	
5	September And October	UNIT 5 Applet, AWT and Swing Programming Introduction Types applet Applet Life cycle - Creating applet - Applet tag Applet Classes - Color - Graphics - Font AWT Components and container used in AWT Layout managers Listeners and Adapter classes Event Delegation model Swing Introduction to Swing Component and Container Classes	12

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject : Web Technologie

Subject Teacher: Prof. V. R. Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Web Essentials Clients- Servers and Communication Internet-Basic ,Internet Protocols(HTTP,FTP,IP) World Wide Web(WWW) HTTP request message, HTTP response message	03
2	July August	UNIT 2 Markup Language Introduction to HTML Basic HTML Structure Common HTML Tags Physical and Logical HTML Types of Images, client side and server-side Image mapping List, Table, Frames Embedding Audio, Video HTML form and form elements Introduction to HTML Front Page CSS with HTML	08
3		UNIT 3 Java Script Introduction to Java Script Identifier & operator, control structure, functions Document object model(DOM), DOM Objects(window, navigator, history, location) Predefined functions, math & string functions Array in Java scripts Event handling in Java script	06
4		UNIT 4	10

	September	Introduction to PHP Introduction to PHP What does PHP do? Lexical structure Language basics Variable, constant, keywords, Data Types Control Structures Variables variable Type casting, Type Juggling \$_GET, \$_POST, \$_REQUEST Variables	
5		UNIT 5 Function and String in PHP Defining and calling a function Default parameters Variable parameters, Missing parameters Variable function, Anonymous function Types of strings in PHP Printing functions Encoding and escaping Comparing strings Manipulating and searching strings	10
6	October	UNIT 6 Arrays in PHP Indexed Vs Associative arrays Identifying elements of an array Storing data in arrays Multidimensional arrays Extracting multiple values Converting between arrays and variables Traversing arrays Sorting Action on entire arrays	07

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject : .NET Programming

Subject Teacher: Prof. V. A. Sandbhor.

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Introduction to .NET Framework IDE (Integrated Development Environment) Event Driven Programming . NET Framework Architecture of .Net Execution Process of .Net Application Features of .Net Advantages of .Net Develop simple .Net Application	08
2	July August	UNIT 2 Introduction to VB.NET Basics of VB.Net Operators Data Types Control Structures Decision making statements Loops - For, while, do while etc. Exit Statements Build Console Applications Methods - Read(), Readline(), Write(), Writeline() etc. Build Windows Applications Controls - Form, TextBox, Button, Label, CheckBox, Listbox, ComboBox, RadioButton. DateTimePicker, MonthCalender, Timer, Progressbar, Scrollbar, PictureBox, ImageBox, ImageList, TreeView, ListView, Toolbar, StatusBar, Datagridview Menus and PopUp Menu	10

		Predefined Dialog controls DialogBox - InputBox(), MessageBox(), MsgBox()	
3		UNIT 3 Object Oriented Programming in VB.NET Class and Object Properties, methods and events. Constructors and Destructors Method overloading Inheritance MyBase , MyClass keywords. Access modifiers: Public, Private, Protected, Friend. Method Overriding. Interfaces. Polymorphism. Exception Handling	06
4	September	UNIT 4 Architecture of ADO.NET Database : Connection, Command, DataAdapter ,DataSet, DataReader, DataTable Connection to database with Server Explorer Multiple Table Connection Data binding with controls like TextBox, ListBox, DataGrid. Navigating data source DataGridView, DataFormwizard, Data validation	12
5		UNIT 5 Crystal Report Connection to Database, Table, Queries, Building Report, Modifying Report, Formatting Fields and Object Header, Footer, Working with formula fields, Parameter fields, Special fields Working with Multiple Tables	09

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject :Object Oriented Software Engineering

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	July	UNIT 1 Object Oriented Concepts ,Modeling and UML What is Object Orientation? (Introduction to class, object, inheritance, polymorphism) Model Introduction of Modeling Object Oriented Modeling Object oriented system development Function/data methods Object oriented analysis Object oriented construction Object oriented testing Identifying the elements of an object model Identifying classes and objects Specifying the attributes Defining operations Finalizing the object definition Introduction to UML Overview of UML Conceptual Model of UML Architecture Advantages of UML	08
	July	UNIT 2 Basic and Advanced Structural Modeling Classes and Relationship Common mechanism	12

	And August	Diagrams Class diagram Advanced classes Advanced Relationship Interface , Types and Roles Packages Object Diagram	
2	August	UNIT 3 Basic Behavioral and Architectural Modeling Use cases, Use Case Diagram Interaction Diagram Sequence Diagram Activity Diagram State Chart Diagram Collaboration Diagram Components Diagram Deployment Diagram	12
3	August	Object Oriented Analysis Iterative Development Understanding requirements Unified process & UP Phases Inception Elaboration Construction Transition	8
4	September	Object Oriented Design The Booch Method, The Coad and Yourdon Method and Jacobson and Rumbaugh Method Generic components of OO Design model System Design process Partitioning the analysis model Concurrency and subsystem allocation Task Management component Data Management component Resource Management component Inter sub-system communication Object Design process	4

આજ દિ. ૩ જુલૈ ૨૦૧૯ નોની
મરાઠી વિજ્ઞાપનાની સમજાવ મ. ૧૧ ના. મરાઠી
વિભાગના આયોજિત સરઘાત કાઠી, સમેળના
સહયદ્યગી મા. પ્રાગર્થ ડૉ. દુડા. ની પાસેલા હોયે.
સમેળ સ્થાપિત ગ્રામ્યપદ સમક્ષિત હોયે.

- ૧) પ્રાગર્થ ડૉ. દુડા. શ્રી. પાસેલા
- ૨) ડૉ. દુડા. ડી. શિદિ
- ૩) ડૉ. શ્રી. ડી. જાગુમે
- ૪) મા. શ્રી. શ્રી. કાંઠડે
- ૫) મા. દુડા. શ્રી. દાત્રાપુને

શ્રી.

વિજ્ઞાપના

સરઘાત કાઠી

સમેળના

સહયદ્યગી

મા સમેળ સ્થાપિત વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની નિર્ણય
કેળવ્યાત આલે.

વિષય ક્ર. ૧ - મૌલિક વર્ગ ૨૦૧૯-૨૦ નોની સરઘાત કાઠી,
નિકાલના સમજાવ મ. ૧૧ નોની સરઘાત કાઠી, સમેળના
સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી,
સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી.

વિષય ક્ર. ૨ - મૌલિક વર્ગ ૨૦૧૯-૨૦ નોની સરઘાત કાઠી,
સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી,
સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી.

વિષય ક્ર. ૩ - મૌલિક વર્ગ ૨૦૧૯-૨૦ નોની સરઘાત કાઠી,
સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી,
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સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી,
સમેળના સહયદ્યગી વિજ્ઞાપનાની સમજાવ મ. ૧૧ નોની સરઘાત કાઠી.

વિષય ક્ર. ૪. શૈક્ષણિક વર્ષ ૨૦૧૬-૧૮ માં
મરાઠી વિભાગ પ્રમુખ સ્થૂત ડૉ. સંજય શિં
શાંતી સેનાનું કાર્યકાર આલે. સા. સંજય
ડૉ. સંજય શિં. પદવિલ પાઠ્યા હશે સારકાર
કાર્યકાર આલે.

વિષય ક્ર. ૫. મરાઠી વિભાગને વિરુદ્ધ ગુરુ
સાથે મેલે સામાજિક પ્રધાન ડૉ. સંજય શિં
પદવિલ શાંતી શિં.

સંજય શિં. સંજય શિં. સંજય શિં. સંજય શિં.
સંજય શિં. સંજય શિં. સંજય શિં. સંજય શિં.



સંજય શિં
ડૉ. સંજય શિં

મરાઠી વિભાગ પ્રમુખ
દુવાના રાજગુરુ મહાવિદ્યાલય
રાજગુરુનાથ, તા. ૧૬.૧૨.૧૯.

Syllabus Completion Report

Academic Year 2017-18

Class: - F.Y.B.COM

Subject Name -: Financial Accounting.

Prof. G. M. Dhumal Div- A

Prof. P. P.Oswal Div- C

Prof. H.S.Chaudhari Div- B+ D

Prof-P.P.Sandbhor Div E&F and G&H

Unit No	Topic Taught	No of lectures					
		A	B	C	D	E&F	G&H
1	Piecemeal Distribution of Cash Meaning and Introduction, Surplus Capital Method and Maximum Loss Method	12	12	12	12	12	12
2	Amalgamation of Partnership Firms:- Meaning and Introduction, Objectives, Methods of accounting	14	14	14	14	14	14
3	Conversion of a partnership firm into a limited company Meaning and introduction, objectives, effects, methods of calculation of purchase consideration (Net Asset and Net Payment method), accounting procedure in the books of the firm and balance sheet of new company	13	13	13	13	13	13
4	Computerized Accounting Environment Meaning and Introduction, application of accounting software package, Voucher entry through software package.	15	15	15	15	15	15
5	Introduction and Relevance of Accounting Standards Overview of Accounting Standards in India-Concept, Need, Scope and Importance. Study of AS- 1, AS- 2, AS- 4 and AS- 9	11	11	11	11	11	11
6	Royalty Accounts [excluding sub-lease]: Royalty, Minimum Rent, Short Workings, Recoupment of Short Working, Lapse of Short Working. Journal Entries and Ledger Accounts in the Books of Landlord and Lessee.	13	13	13	13	13	13
7	Hire Purchase and Installment System:[Excluding H. P. Trading] Basic Concepts and Distinction, Calculation of Interest and Cash Price, Journal	17	17	17	17	17	17

	Entries And Ledger Accounts in The Books of Purchaser and Seller.						
8	Departmental Accounts Meaning and Introduction, Methods and Techniques, Allocation of expenses, Inter Departmental Transfers, Provision for unrealized profits	13	13	13	14	12	12
	Total No. of lectures Taken	108	108	108	109	107	107

Class: - F.Y.B.COM

Subject Name -: Business Mathematics And Statistics

Prof. G.M.Dhumal Div- A

Prof. V.M.Wayal Div- B

Prof.G.S.Telang Div-C

Prof.S.P.Borhade Div-D

Prof-N.S.Shah Div E&F and G&H

Month	Unit No	Topic	No of lectures					
			A	B	C	D	E&F	G&H
June-July	1	Pre-requisites (For objective type questions only) 1. Natural Numbers and Integers 2. H.C.F and L.C.M. 3. Fractions- addition, subtraction multiplication and division of two or more fractions 4. Laws of Indices 5. Ratio and Percentage 6. Proportion and partnership	10	10	10	10	10	10
Aug	2	Interest 1. Simple Interest 2. Compound interest (nominal and effective rate of interest) 3. Equated Monthly Installments (EMI) (Reducing and flat rate of interest) 4. Examples	08	08	08	08	08	08
Sept	3	Shares and dividends 1. Concept of Shares, face value, market value, Net Asset Value 2. Equity Shares and Preference shares 3. Dividend 4. Bonus Shares 5. Examples	06	06	06	06	06	06
sept	4	Population and Sample 1. Definition and concept of Statistics 2. Scope of Statistics in Economics, Management Science and Industry 3. Concept of Population and Sample 4. Methods of Sampling: Simple Random Sampling and Stratified Random Sampling (Description of procedures only)	08	08	08	08	08	08
Oct	5	Measures of central tendency 1. Variables Qualitative and Quantitative, Raw data, Classification of data, 2. Frequency distribution, cumulative	16	16	16	16	16	16

		frequency distribution, 3. Histogram (finding mode graphically) Ogive curves and its uses. 4. Measures of central tendency: Mean, Median for ungrouped and Grouped data. 5. Examples						
Dec	6	Profit and Loss 1. Concept of Cost Price, Marked Price and Selling Price 2. Trade Discount and Cash Discount 3. Commission and Brokerage 4. Examples	12	12	12	12	12	12
Dec	7	Linear Programming Problems (For two Variables only) 1. Definition and terms in a L.L.P. 2. Formulation of L.L.P. 3. Solution by Graphical Method 4. Examples	12	12	12	12	12	12
Jan	8	Measures of dispersion 1. Concept of Dispersion 2. Measures of Dispersion – Range, Variance and Standard Deviation (S.D.) for Grouped and ungrouped data 3. Measures of relative dispersion- Coefficient of range and coefficient of Variation 4. Examples	08	08	08	08	08	08
Feb	9	Correlation and Regression 1. Concept of Bivariate data, correlation using scatter diagram 2. Karl Pearson's Coefficient correlation for ungrouped data 3. Spearman's Rank correlation coefficient 4. Concept of regression, lines of regression 5. Regression as prediction Model 6. Examples	08	10	08	10	08	08
March	10	Index number 1. Concept of Index Number 2. Construction of Price Index Number 3. Laspeyre's, Paasche's and Fisher's Method 4. Family Budget and Aggregate Expenditure Method 5. Concept of – Cost of Living	10	08	11	10	08	08

		/Consumer Price Index Number, SENSEX and NIFTY 6. Examples						
		Total No of Lecture	98	98	99	100	96	96

Syllabus Completion Report Academic Year 2017-18

Class: - F.Y.B.COM

Subject Name -: Organizational Skill Development

Prof. S.S.Thorat Div- C

Prof. S.P.Borhade Div- D

Unit No	Topic	No of lectures	
		C	D
1	Modern Office 1.1 Introduction, Definition, Characteristics, Importance and Functions 1.2 Traditional and Modern Concepts of Office 1.3 Office Location Meaning, Objectives , Principles of Office Location Office Layout – Meaning , Objectives , Principles and Layout ,Modular and Structured Furniture 1.4 Factors of Good Ambience Office Lighting, ventilation. Temperature, Sanitation, Interior Decoration, Noise and Cleanliness.	12	13
2	Office Organization 1.1 Definition, Importance of office organization, 1.2 Principles, Steps. 1.3 Types of Organization 1.4 Concept and Functions of Office Administrator.	12	12
3	Office Manager and Organizational Skills 3.1 Office Manager – Role, duties and responsibilities 3.2 Qualification, Qualities and skills of an office manager 3.3 Time Management –Definition, Need, Principles, advantages and Disadvantages, Time Management techniques. 3.4 Goal Setting-Concept of goal-setting - Importance of goals,	12	12

	SMART(Specific, Measurable, Achievable, Realistic, Time-bound) goals , Do's and Don'ts about goals.		
4	Office services 4.1 Mail Routine , Courier Services its need and Importance 4.2 Office Forms - objectives, advantages and types of office forms E-forms – advantages. 4.3 Organizational Web Page – Contents, advantages, Internet/Web based applications of office activities. 4.4 Office Stationary and Supplies - Importance of stationary, Essentials of a good system of regulating stationary, purchases, storage, Record of stationary,	12	13
5	Office Records Management 5.1 Introduction - Need - Objectives - Kinds of Records. 5.2 Organization of records department. 5.3 Classifying and Indexing of Records and Files. Principles - Retention and disposition of records. 5.4 Digitalization of Records: Meaning, advantages, process, utility and feasibility.	12	12
6	Office Communications 6.1 Meaning and Elements of Office Communications, 6.2 Channels of Communication – Internal and External 6.3 Significance and barriers to effective communications 6.4 Recent trends in modern communications such as Fax - E-Mail, Internet, Intranet, www(World Wide Web),Tele conferencing, Video Conferencing as means of Communication	12	13
7	Public Relations : 7.1 Definition, nature, Scope of PR with customers, investors , employees, government offices and others 7.2 Objectives, importance and functions 7.3 Role of Public Relation Officer in Modern Office 7.4 – Modern methods of Public Relations	12	14
8	Office Automation 8.1 Office Automation – meaning, scope ,feasibility, and advantages 8.2 Different types of modern appliances and machines used in Offices. 8.3 Computerization of office activities - LAN – WAN 8.4 Accounting Packages, Payroll Accounting, Inventory statements, - Vouchers –Invoices - Salary - Maintenance of records and Accounting Books and preparation of financial Report, Leave accounting, Attendance.	12	12
	Total No. of lectures Taken	96	101

Syllabus Completion Report

Academic Year 2017-18

Class: - F.Y.B.COM

Subject Name -: Banking and Finance

Prof. H.S.Chaudhari Div-E&F

Prof. R.M.Dangat Div-B

Prof. P.R.Arude Div- G&H

Unit No	Topic	No of lectures				
		B	C	D	E	F
1	Evolution of banking 1.1 Origin, Meaning and Definition of 'Bank' 1.2 Evolution of banking- Europe, USA & Asia 1.3 Evolution of banking in India. 1.4 Structure of Indian Banking System	06	06	06	06	06
2	Functions of Bank 2.1 Primary functions: A) Accepting deposits: Demand deposits: Current and Savings; No Frills Account, Time deposits-Recurring and Fixed deposits, Flexi Deposits (Auto Sweep) B) Granting Loans and Advances- Term Loan, Short term credit, Overdraft, Cash Credit, Purchasing, Discounting of bills, 2.2 Secondary functions: A) Agency Functions- Payment and Collection of Cheques, Bills and Promissory notes, Execution of standing instructions, Acting as a Trustee, Executor. B) General Utility Functions: Safe Custody, Safe deposit vaults, Remittances of funds, Pension Payments, Acting as a dealer in foreign exchange.	14	14	14	14	14
3	Procedure for opening and operating of deposit account 3.1 Procedure for Opening of Deposit Account: Know Your Customer- Needs and Norms (KYC Norms), Application form, Introduction, Proof of residence, Specimen signature and Nomination: Their Importance 3.2 Procedure for Operating Deposit Account: Pay-in-slips, Withdrawal slips, Issue of pass book, (Current Savings or Recurring deposits), Issue of Cheque book, Issue of fixed deposit receipt, Premature encashment of fixed deposits and loan against fixed deposit. Recurring deposits: Premature encashment and loan against recurring deposit. 3.3 a) Closure of accounts b) Transfer of accounts to other branches/Banks 3.4 Types of account holders	14	14	14	14	14

	a) Individual account holders- Single or joint, Illiterate, Minor, Married woman, Pardahnashin woman, Non resident accounts b) Institutional account holders- Sole proprietorship, Partnership firm, Joint stock company, Hindu undivided family, Clubs, Associations and Societies and Trusts.					
4	Methods of Remittances 4.1 Demand drafts, bankers' Cheques and Truncated Cheques 4.2 Mail transfer, Telegraphic transfer, 4.3 Electronic Funds Transfer- RTGS, NEFT and SWIFT	14	14	14	14	14
5	Lending principles, Credit Creation and Balance Sheet of a bank 5.1 Safety, Liquidity, Profitability, Diversification of risks 6Conflict between liquidity and profitability 5.2 Multiple Credit Creation: Process and Limitations 5.3 Balance sheet of a commercial bank.	16	16	16	16	16
6	Negotiable Instruments 6.1 Definition, meaning and characteristics of Promissory note, Bill of Exchange and Cheque 6.2 Types of Cheques- Bearer, Order and Crossed 6.3 Types of Crossing- General and Special.	16	16	16	16	16
7	Endorsement 7.1 Definition and meaning of endorsement 7.2 Types of endorsement- Blank, Full or Special, Restrictive, Partial, Conditional, Sans Recourse, Facultative.	08	08	08	08	08
8	Technology in Banking 8.1 Need and importance of technology in banking 8.2 E-Banking: ATM, Credit card, Debit card, Tele Banking, Mobile Banking, Net Banking, SWIFT (Society for Worldwide Inter-bank Financial Telecommunication) 8.3 Concept and benefits of Core Banking Solution.	08	08	08	08	08
	Total No. of lectures Taken	90	90	90	90	90

Syllabus Completion Report

Academic Year 2017-18

Class: - F.Y.B.COM Subject Name -: Consumer Protection and Business Ethics

Prof. R.R.Rode Div- A

Prof. T.B.Vehale Div-B

Prof. S.P.Borhade Div- G&H

Prof.R.M.Dangat Div - E&F

Unit No	Topic	No of lectures					
		A	B	D	E	F	G
01	Consumer and Consumerism: 1. 1. Consumer: Concept, Meaning, Definition and Features 1. 2. Problems of consumers: Rural and urban, Its Nature and Types 1. 3. Consumerism – Meaning, objectives, Benefits- Consumerism in India 1. 4. Rights, Duties and Responsibilities of Consumers. 1. 5. Consumer Movement-Meaning-Definition-Importance, Scope and Features 1. 6. Development of Consumer Movement in India- Problems and Prospects.	18	18	18	18	18	18
02	Voluntary Consumer Organizations (VCO) and Consumer Protection: 2. 1. VCO: Origin, Importance, Functions and Limitations 2. 2. Challenges before VCOs 2. 3. Role of Voluntary Consumer Organization in Consumer Protection in the area of marketing & Advertisements. 2. 4. Consumer Education-Meaning-Definition-Objectives	06	06	06	06	06	06
03	United Nations Guidelines for Consumer Protection: 3. 1. United Nations and Consumer Protection 3. 2. United Nations Guidelines for Consumer protection, 1985. 3.2.1. Objectives. 3.2.2. General principles. 3.2.3. Guidelines a) Physical Safety b) Promotion and protection of consumers' economic interests c) Standards for the safety and quality of consumer goods and services d) Education and Information Programme e) Promotion of Sustainable Consumption	08	08	08	08	08	08
04	Consumer Protection Act, 1986: 4. 1. Background – Need-Scope and Features 4. 2. Definitions- Consumer-Goods-Services- Complaints, Complainant- Defect in Goods- Deficiency in Services, Unfair Trade Practices, Restricted Trade Practices. 4. 3. Consumer Protection Councils-Composition-Working-and Objectives of:	20	20	20	20	20	20

	a) District Consumer Protection Council b) State Consumer Protection Council c) National Consumer Protection Council 4. 4. Mechanism for Redressal-Composition and working of- Consumer Disputes Redressal Agencies: a) District Consumer Disputes Redressal Forum b) State Consumer Disputes Redressal Commission c) National Consumer Disputes Redressal Commission 4. 5. Procedure of filing complaints						
05	An overview of various Laws for the Protection of Consumers: 5. 1. The Bureau of Indian Standards Act, 1986 (Sections - 1,10,11,14,33) 5. 2. The Competition Act, 2002 (Sections – 1, 3 to 6) 5. 3. Right to Information Act, 2005 (Sections – 1 to 11, 18, 19 and 20) 5. 4. Food Safety and Standards Act, 2006 (Sections– 1to 3, 18 to 28)	18	18	18	18	18	18
06	Protection of Consumer against Standard Form of Contract: 6. 1. Nature and Relevance of Standard Form of Contract 6. 2. Judicial Response to Standard Form of Contract in India and abroad 6. 3. Legislative Reforms	04	04	04	04	04	04
07	Conceptual Framework of Business Ethics: 7. 1. Concept of Ethics: Its Meaning and Nature 7. 2. Definition importance and Scope of Business Ethics 7. 3. Types of Business Ethics; viz:- i. Professional business ethics ii. Ethics of accounting information iii. Ethics of Production iv. Ethics of intellectual property skill, knowledge etc.	10	10	10	10	10	10
08	Business Ethics in Modern Times: 8. 1. Social Responsibilities of Business 8. 2. Business Ethics and Environmental Issues: Indian and International level - Green initiatives 8. 3. Management and Ethics i. Ethical Issues in Marketing ii. Ethical Issues in Human Resource Management	10	10	10	10	10	10
	Total No. of lectures Taken	94	94	94	94	94	94

Syllabus Completion Report

Academic Year 2017-18

Class: - F.Y.B.COM

Subject Name -: Business Environment & Entrepreneurship

Prof. S.S.Thorat Div- D

Prof. P.P.Sandbhor Div- C

Unit No	Topic	No of lectures	
		C	D
1	Business Environment - Concept- Importance - Inter relationship between environment and entrepreneur, Types of Environment- Natural, Economic - Political - Social - Technical - Cultural - Educational - Legal - Cross-cultural – Geographical etc.		12
2	Environment Issues Protecting the Natural Environment – prevention of pollution and depletion of natural resources; conservation of natural resources, Opportunities in Environment.		12
3	Problems of growth Relevance to entrepreneurship -Unemployment- Poverty-Regional imbalance- Social injustice-Inflation - Parallel Economy- Lack of Technical knowledge and information.		12
4	The Entrepreneur- Evolution of the term entrepreneur-" Competencies of an entrepreneur - Distinction between entrepreneur and manager- Entrepreneur and enterprise -Entrepreneur and Intrapreneur. Entrepreneur and Entrepreneurship.		12
5	Entrepreneurial Behaviour - Comparison between entrepreneurial and non-entrepreneurial Personality-Habits of Entrepreneurs - Dynamics of Motivation		12
6	Entrepreneurship Importance of Entrepreneurship - Economic Development and Industrialization, Entrepreneurship in Economic Theory- Role of Entrepreneurship ~ Entrepreneur as a catalyst.		12
7	National Level Training Organizations in promoting entrepreneurship (1) Entrepreneurship Development Institute of India (EDII) State Level Training Organizations in promoting entrepreneurship (1) MCED (2) DIC (3) Maratha Chamber of Commerce and their role. (4) Local NGO's and their roles.		12
8	Biographical study of entrepreneurs i) Narayan R. Murthy ii) Cyrus Poonawala iii) Any successful Entrepreneur from your area (Milind Kamble)		12
Total No. of lectures Taken			

Syllabus Completion Report

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: Business Communication

Prof. Dr. H. M. Jare Div-A

Prof. R.N.Katore Div- B & C

Unit No	Topic	No of lectures		
		A	B	C
1	Introduction of Business Communication: Introduction, Meaning, Definition, Features, Process of Communication, Principles, Importance, Barriers to Communication & Remedies.	12	12	12
2	Methods and Channels of Communication: Methods of Communication-Merits and Demerits & Channels of Communication in the Organization and their Types, Merits & Demerits	10	10	10
3	Soft Skills: Meaning, Definition, Importance of Soft Skills Elements of Soft Skills: 1) Grooming Manners and Etiquettes 2) Effective Speaking 3) Interview Skills 4) Listening 5) Group Discussion 6) Oral Presentation	18	18	18
4	Business Letters: Meaning, Importance, Qualities or Essentials, Physical Appearance, and Layout of Business Letter	10	10	10
5	Types and Drafting of Business Letters: 1) Enquiry Letters 2) Replies to Enquiry Letters 3) Order Letters 4) Credit and Status Enquiries 5) Sales Letters 6) Complaint Letters 7) Collection Letters 8) Circular Letters	18	18	18
6	Job Application Letters: Meaning, Types & Drafting of Job Application Letters, Bio-Data/Resume /Curriculum Vitae	08	08	08
7	Internal and other Correspondence: 1) Office Memo (Memorandums) 2) Office Orders 3) Office Circulars 4) Form Memos or Letters 5) Press Releases	12	12	12

8	New Technologies in Business Communication: Internet: Email, Websites, Electronic Clearance System, Writing a Blog Social Media Network: Twitter, Facebook, LinkedIn, YouTube, Cellular Phone,WhatsApp,Voice MailShort Messaging ServicesVideo Conferencing Mobile	14	14	14
	Total No. of lectures Taken	102	102	102

Syllabus Completion Report

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: Corporate Accounting

Prof. G.M.Dhumal Div- A

Prof. R.N Katore Div-C

Prof. S.P.Borhade Div- B&D

Unit No	Topic	No of lectures			
		A	B	C	D
1	Accounting Standards:- Detailed Study of Accounting Standards 5, 6, 10, 14, 21 with Practical Examples numerical case studies, Application nature.	10	10	10	10
2	Company Final Accounts:- Preparation of Final Accounts- Forms and contents as per Provisions of Companies Act (As Amendment upto the beginning of the relevant academic year) As per Revised Schedule- VI	15	15	15	15
3	Company Liquidation Accounts:- Meaning of Liquidation- Modes of winding up – (a) Preparation of Liquidator final statement of Account (b) Preparation of Statement of Affairs and Deficiency Account.	16	16	16	16
4	Computerized Accounting Practices:- Conceptual background - (a) Inventory Accounting (b) Payroll Accounting (c) MIS Reports including Demonstration and Hands Experience.	14	14	14	14
5	Accounting for Amalgamation, Absorption and External Reconstruction of Companies:- Meaning- Vendor and Purchasing Companies- Purchase Consideration- Accounting entries- and Preparation of Balance Sheet after Amalgamation, Absorption and External Reconstruction.	16	16	16	16
6	Accounting for Internal Reconstruction:- Meaning- Alteration of Share Capital, Reduction of Share Capital- Accounting Entries and preparation of Balance Sheet After Internal Reconstruction	10	10	10	10
7	Holding Company Account:- Preparation of consolidated Balance sheet of Holding Company with one subsidiary only. Adjustment of inter company transactions, unrealized profit of stock.	16	16	16	14
8	Valuations of Shares:- Concept of Valuation, Need for Valuation, Special Factors affecting Valuation of Shares, Methods of Valuation - (a) Net Assets Method, (b) Yield Basis Method, (c) FairValue Method.	12	12	12	12
Total No. of lectures Taken		107	107	107	107

Syllabus Completion Report

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: BUSINESS MANAGEMENT

Dr. H. M. Jare Div- A

Prof .R .R. Rode Div- B&C

Prof. P.P.Sandbhor Div- D

Unit No	Topic	No of lectures			
		A	B	C	D
1	OVERVIEW OF MANAGEMENT Meaning, Definition, Management: Is it Science, Art or profession? Characteristics of Professional Management. The need of Management Study. Process of Management, Level Of Management, Managerial Skills, Challenges before management , Brief Review of Management Thought with reference to FW Taylor & Henry Fayol	12	12	12	12
2	PLANNING & DECISION MAKING. Planning-Meaning, Definition, Nature, Importance, Forms, Types Of Planning, Steps in Planning, Limitations Of Planning. Forecasting-Meaning & Techniques. Decision Making- Meaning, Types Of Decisions & Steps In Decision Making.	14	14	14	14
3	ORGANIZATION & STAFFING Meaning, Process & Principles, Departmentalization, Organization Structure, Authority and Responsibility, Delegation of authority, Difficulties in delegation of Authority, Centralization verses Decentralization, Team Work. Staffing-Meaning, Need & Importance of Staffing, Recruitment-Sources and Methods of Recruitment.	12	12	12	12
4	DIRECTION & COMMUNICATION Direction- Meaning, Elements, Principles, Techniques & importance.. Communication-Meaning, Types, Process of Communication & importance of effective Communication. Barriers to Communication.	15	15	15	15
5	MOTIVATION Meaning, importance, Theories of motivation, Maslow's Need Hierarchy Theory, Herzberg's Two factors Theory, Douglas Mc Gregor's Theory of X & Y & Ouchi's Theory Z. McClelland's Theory.	12	12	12	12
6	LEADERSHIP Meaning, Importance, Qualities & Functions of a Leader, Leadership Styles for Effective Management .Contribution of Mahatma Gandhi, Dr. Babasaheb Ambedkar & Pandit Jawaharlal Neharu	12	12	12	12
7	CO-ORDINATION AND CONTROL Meaning and Need , Techniques of establishing Co-ordination, difficulties in	12	12	12	12

	establishing co-ordination, Control-Need, steps in the process of control & Techniques.				
8	RECENT TRENDS IN BUSINESS MANAGEMENT Business Ethics, Corporate Social Responsibility, Corporate Governance, Disaster Management, Management of Change	11	11	11	11
	Total No. of lectures Taken	100	100	100	100

Syllabus Completion Report

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: ELEMENTS OF COMPANY LAW

Prof. G. M. Dhumal Div- A

Prof. S.S. Thorat Div- B & C

Prof. S. A. Veer Div-D

Unit No	Topic	No of lectures			
		A	B	C	D
1	Introduction to the New Act & Concept of Companies: 1.1. Background and Salient Features of the Act of 2013, Overview of the changes introduced by the Act of 2013; 1.2. Nature and types of Companies, Definitions and important features of a Company- Distinction between a company and a partnership - Lifting or Piercing the Corporate Veil 1.3. Types of Companies based on various criteria including one man company, dormant company, sick and small company, associate company. 1.4. Distinction between private and public company (Advantages, Disadvantages and privileges of both the companies) - Conversion of a private company into a public company - Conversion of a public company into a private company.	13	13	13	13
2	Formation and Incorporation of a Company: 2.1. Stages in the Formation and Incorporation. 2.1.1. Promotion: Meaning of the term 'Promoter' / Promoter Group - Legal Position of Promoters, Pre-incorporation contracts. 2.1.2. Registration/ Incorporation of a company : - Procedure, Documents to be filed with ROC. Certificate of Incorporation- Effects of Certificate of Registration. 2.1.3. Floatation/ Raising of capital. 2.1.4. Commencement of business.	08	08	08	08
3	Documents relating to Incorporation and Raising of Capital: 3.1 Memorandum of Association: Meaning and importance- Form and contents- Alteration of memorandum. 3.2 Articles of Association: Meaning- Relationship of and distinction between Memorandum of association and Articles of association- Contents and form of Articles- Alteration of articles- Doctrine of constructive notice- Doctrine of Indoor Management. 3.3 Prospectus: Meaning and Definition- Contents- Abridged form of prospectus- Statutory requirements in relation to prospectus- Deemed prospectus- Shelf prospectus - Statement in lieu of prospectus- Misstatement in a prospectus and Liabilities for Mis-statement.	08	08	08	08

4	Capital of the Company 4.1 Various Modes for Raising of Share Capital including private placement, public issue, rights issue, bonus shares. 4.2 ESOS, Sweat Equity Shares, Buy-back of shares. 4.3 Allotment of Shares: Meaning- - Statutory provisions for allotment, improper and irregular allotment- Consequences of irregular allotment. 4.4 Calls On Shares: Meaning- Requisites of a valid call, Calls in advance 4.5 Share Certificates: Meaning, Provisions regarding issue of share certificates - Duplicate Share Certificate. 4.6 Share Capital – Meaning, Structure (Kinds) – Concept of Securities – Definition, Nature and Kinds of Shares.	15	15	15	15
5	Forfeiture, Surrender & Transfer of Shares 5.1 Forfeiture and Surrender of Shares: Meaning of forfeiture of shares: - Conditions/Rules of valid forfeiture- Effect of forfeiture- Re-issue of forfeited shares- Annulment of forfeiture- 5.2 Surrender of shares 5.3 Transfer and transmission of shares - meaning and procedure distinction between transfer and transmission 5.4 Nomination of shares	07	07	07	07
6	E-Governance and E-Filing: 6.1 Introduction- Meaning of E-Governance 6.2 Advantages of E-Governance, 6.3 Basic understanding of MCA Portal 6.4 E-filing (Ss. 397 to 402), DIN-Directors Identification Number (Ss. 153-159)	6	6	6	6
7	Management of Company: 7.1 Board of Directors: Definition, Powers, Restrictions, Prohibition on Board. (Ss. 179 to 183) 7.2 Director: Meaning and Legal position of directors. 7.3 Types of Directors – Types including Executive, Non-Executive, Independent, Additional, Alternate, Interested, Nominee Director, Related Party Transactions (Ss. 188) 7.4 Appointment of Directors, Qualifications and Disqualifications. 7.5 Powers, Duties, Liabilities of Directors, Remedies for Breach of Duties. 7.6 Loans to Directors (S. 185), Remuneration of Directors	12	12	12	12
8	Key Managerial Personnel (KMP) 8.1 Meaning, Definition and Appointments of Managing Director, Whole Time Director, Manager, Company Secretary Term of office/ Tenure of appointment, Remuneration – 8.2 Distinction between Managing Director, Manager and Whole Time Director - Role (Powers, Functions of above KMP) 8.3 Corporate Social Responsibility (CSR) [U/S 135] – Concept	11	11	11	11

	who is Accountable, CSR Committee, Activities under CSR, 8.4 Role of Board of Directors. 8.5 Prevention of Oppression and Mismanagement (Ss. 241 to 246)				
9	Company Meetings: 9.1 Board Meeting – Meaning and Kinds 9.2 Conduct of Meetings - Formalities of valid meeting [Provisions regarding agenda, notice, quorum, proxies, voting, resolutions (procedure and kinds) minutes, filing of resolutions, Virtual Meeting] 9.3 Meeting of Share Holders General Body Meetings, Types of Meetings A. Annual General Meeting (AGM), Ss. 96 to 99 B. Extraordinary General Meeting (EOGM) – S. 100 9.4 Provisions regarding convening, constitution, conducting of General Meetings contained in Ss. 101 to 114	12	12	12	12
10	10.1 Revival and Re-habilitation of Sick Companies (S. 253-269) 10.2 Compromises, Arrangements and Amalgamation: Concept and Purposes of Compromises, Arrangements, Amalgamation, Reconstruction – Fine distinction between these terms.: 10.3 Winding –up: Meaning of winding-up, Dissolution of company, Conceptual understanding of winding-up by the Tribunal, Compulsory winding-up, Members' voluntary winding-up, Creditors' voluntary winding-up	12	12	12	12
	Total No. of lectures Taken	104	104	104	104

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: BUSINESS ADMINISTRATION I

Prof. H. S. Chaudhari Div- B& C

Prof. R. N. Katore Div- D

Unit No	Topic	No of lectures		
		B	C	D
1	BUSINESS ADMINISTRATION CONCEPTS Business - Definition, Characteristics, scope & Objectives of business- Economic& Social perspectives . Commerce- Meaning, Concept. Trade & Aids to trade- Meaning & Definition of the Terms: Administration, Management and Organization. Functions of Administration	12	12	12
2	FORMS OF BUSINESS ORGANIZATION Sole Proprietorship, Partnership Firm, Limited Liability Partnership, Joint Ventures, Joint Stock Company, Co-operative Society- features, Merits & Limitations. Non Profit joint Stock Company under section 25 of the Companies Act Suitability of a form of organization- Factors determining the suitability of form of Organization	14	14	14
3	BUSINESS ENVIRONMENT Meaning, Constituents of business environment-Economic, International, Social, Legal, Cultural, Educational, Political, Technological & Natural. Interaction of business & environmental forces. Social Responsibilities	15	15	15
4	BUSINESS PROMOTION Business Unit- Promotion: Concept of promotion, stages in business promotion, Factors affecting location & Size, Present trends in location, size of business unit. Role of Govt in the promotion of SEZ	12	12	12
5	LEGAL ASPECTS Compliance of legal requirements in promoting business unit, Licensing, Registration, Filing returns & other documents. Important legal provisions governing promotion & establishment of unit.	12	12	12
6	PRODUCTIVITY Meaning, Importance & measurement of productivity. Factors affecting productivity, techniques, Measures to boost productivity, Role of National Productivity Council- Product Quality Control ISO-9000, 14000, Quality Circles	16	16	16
7	RECENT TRENDS IN BUSINESS MANAGEMENT Liberalization, Privatization, Globalization -meaning, concept -implications & consequences, SEZ, BPO, KPO and LPO .Public Private Partnership.MKCL	12	12	12

8	INDUSTRIAL SICKNESS Meaning, definition, symptoms, causes & Consequences of industrial sickness. Role of Government in prevention of industrial sickness. Role of BIFR.	12	12	12
	Total No. of lectures Taken	105	105	105

Syllabus Completion Report

Academic Year 2017-18

Class: - S.Y.B.COM

Subject Name -: Cost and Works Accounting

Prof. H.M. Jare Div- A

Prof. R.M.Dangat Div- B

Unit No	Topic	No of lectures	
		A	B
1	Basics Of Cost Accounting 1.1 Concept of Cost, Costing, Cost Accounting and Cost 1.2 Accountancy. 1.3 Limitations of Financial Accounting. 1.4 Origin of Costing. 1.5 Objectives of Costing. 1.6 Advantages & Limitations of Costing. 1.7 Difference Between Financial Accounting and Cost Accounting. Cost Units and Cost Center.	16	16
2	Elements Of Cost 2.1 Material, Labour and other Expenses. 2.2 Classification of Costs. 2.3 Preparation of Cost Sheet, Quotation, Tenders.	16	16
3	Material Control 3.1 Need and Essentials of Material Control. 3.2 Functions of Purchase Department. 3.3 Purchase Procedure. 3.4 Purchase Documentation. 3.5 Stock Levels. 3.6 Economic Order Quantity. (EOQ)	16	16
4	Material Accounting 4.1 Stores Location and Layout. 4.2 Types of Stores Organization. 4.3 Classification and Codification of Material. 4.4 Stores and Material Records – 4.5 Bin Card, & Store Ledger etc. 4.6 Issue of Material and Pricing Methods of Issue of Material:- (a) FIFO. (b) LIFO. (c) Simple Average Methods. (d) Weighted Average Methods. 4.7 Stock valuation, Use of computer in store Accounting.	16	16
5	Inventory Control 5.1 Stock Taking, Periodic and Perpetual Method. 5.2 ABC Analysis. 5.3 Inventory Ratios.	08	08
6	Labour Cost, Remuneration And Incentives 6.1 Records & Methods Of Time Keeping and Time Booking Study of New Methods. 6.2 Methods Of Remuneration- Time Rate System, Piece Rate system, Taylor's Differential Piece rate System.	12	12

	6.3 Incentive Plan- Halsay Premium Plan, Rowan Premium Plan. Group Bonus Schemes.		
7	Other Aspects Of Labour 7.1 Labour Turnover. 7.2 Job Analysis & Job Evaluation Key. 7.3 Merit Rating.	10	10
8	Direct Cost 8.1 Concept and Illustrations.	02	02
	Total No. of lectures Taken	96	96

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

**Subject Name -: Business Regulatory Framework
(M. Law)**

Prof. R.R.Rode Div- A

Prof. P.P.Sandbhor Div- B

Prof. R. M. Dangat Div- C

Unit No	Topic	No of lectures		
		A	B	C
1	Law of Contract - General Principles. (Indian Contract Act, 1872) <ul style="list-style-type: none"> • Definition, Concept and kinds of contract • Offer and Acceptance. • Capacity of parties. • Consideration. • Consent and free consent. • Legality of object and consideration. • Void Agreements. • Discharge of contract. • Breach of contract and remedies (Including damages, meaning, kinds and rules for ascertaining damages) 	22	22	22
2	Law of Partnerships: 2.1. Indian Partnership Act 1932: Partnership; Definition and Characteristics, Types of Partners, Rights, Duties and Liabilities of Partners, Dissolution of Partnership. 2.2. Limited Liability Partnership Act 2008: Limited Liability Partnership (LLP); Concept, Nature and Advantages, Difference between LLP and Partnership Firm, Difference between LLP and company, Partners and designated partners, Incorporation of LLP, Partners and their relations, Liability of LLP and Partners (Section 27). Financial Disclosure by LLP, Contributions (Section 32), Assignments and Transfer of Partnership Rights (Section 42) Conversation to LLP (Section 55), Winding-up and dissolution (Section 63 & 64)	10	10	10
3	Sale of Goods.(Sale of Goods Act,1930) Contract of sale-Concept and Essentials. Sale and agreement to sale. Goods-Concept and kinds. Conditions and warranties. (Definition, Distinction, implied conditions and warranties)Transfer by non-owners. Rights of Unpaid Seller and Remedial Measures.	15	15	15
4	E-Contracts (E-Transactions/E-Commerce.): <ul style="list-style-type: none"> • Significance of E-Transactions /E-Commerce. 	08	08	08

	<ul style="list-style-type: none"> ✗ Nature. ✗ Formation. ✗ Legality. ✗ Recognition. <p>(Chapter 4.Sec.11-13 of I T Act,2000 relating to attribution, acknowledgement, dispatch of E-Records)</p> <ul style="list-style-type: none"> • Digital Signatures –Meaning & functions, Digital Signature certificates [Sections 35-39] • Legal issues involved in E-Contracts. 			
5	<p>The Consumer Protection Act, 1986</p> <ul style="list-style-type: none"> • Salient features of the C.P. Act. • Definitions-Consumer, Complainant, Services, Defect & Deficiency, Complainant, unfair trade practice, restrictive trade practice. • Consumer Protection Councils. • Procedure to file complaint & Procedure to deal with complaint & Reliefs available to consumer.(Sec.12 to14) • Consumer Disputes Redressal Agencies. (Composition, Jurisdiction, Powers and Functions.) 	12	12	12
6	<p>Intellectual Property Rights : (IPRs)</p> <ul style="list-style-type: none"> • WIPO: Brief summary of objectives, organs, programmes& activities of WIPO.TRIPS: As an agreement to protect IPR-Objectives & categories of IPR covered by TRIPS. • Definition and conceptual understanding of following IPRs under the relevant Indian current statutes. • Patent: Definition & concept, Rights & obligation of Patentee, its term. • Copyright: Characteristics & subject matter of copyright, Author & his Rights, term. • Trademark: Characteristics, functions, illustrations, various marks, term, internet domain name- Rights of trademark holder. • Design: Importance, characteristics, Rights of design holder. • Geographical Indications, Confidential Information & Trade Secrets, Traditional knowledge—Meaning & scope of these IPRs. 	16	16	16
7	<p>Negotiable Instruments Act, 1881:</p> <ul style="list-style-type: none"> • Concept of Negotiable Instruments: Characteristics, Meaning Important relevant definitions under the Act • Definitions, Essentials of promissory note, bill of exchange and cheque. Distinction between these instruments. Crossing of cheques – It's meaning and types. • Holder and holder in due course, Privileges of holder in due course. • Negotiation, endorsement, kinds of endorsement. • Liabilities of parties to negotiable instruments. • Dishonour of N. I., kinds, law relating to notice of dishonour. Dishonour of cheques. 	14	14	14
8	<p>Arbitration & Conciliation:</p> <ul style="list-style-type: none"> • Concept of Arbitration & Conciliation. • Definition & Essentials of Arbitration Agreement. 	08	08	08

	Power and Duties of Arbitration. Conciliation proceeding. (Provisions of Arbitration & Conciliation Act,1996 in nutshell to be covered.)			
	Total No. of lectures Taken	105	105	105

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

Subject Name -: Advanced Accounting

Prof. H. M. Jare Div- A

Prof.R.M.Dangat Div-B

Prof.R.N.Katore Div-C

Unit No	Topic	No of lectures		
		A	B	C
1	Accounting Standards & Financial Reporting (Introduction to IFRS-Fair Value Accounting):- Brief Review of Indian Accounting Standard :- AS- 3, AS-7, AS-12, AS-15 AS-17 to AS-25 simple practical examples of application nature.	12	12	12
2	Final Accounts of Banking Companies :- * Introduction of Banking Company - Legal Provisions - Non Performing Assets (NPA) - Reserve Fund - Acceptance, Endorsements & Other Obligations - Bills for Collection - Rebate on Bills Discounted - Provision for Bad and Doubtful Debts - Preparation of Final Accounts in vertical form as per Banking Regulation Act 1949. * Introduction to Core Banking System.	13	13	13
3	Insurance Claim Accounts :- A. Claim for Loss of Stock - Introduction - Procedure for Calculation - Average Clause - Treatment of abnormal items of goods - Under & Overvaluation of Stock. B. Claim for Loss of Profit - Introduction - Indemnity under policy - Some important terms - Procedure for ascertaining claims. C. Claim for Loss of Fixed Assets - Introduction - Some important terms - Procedure for ascertaining claims.	14	14	14
4	Final Accounts of Co-operative Societies :- a. Credit Co-operative Societies :- b. Consumer Co-operative Societies :- Meaning - Allocation of Profit as per Maharashtra State Co-operative Societies Act. Preparation of Final Accounts of Credit Co-operative Societies and Consumer Co-operative Societies.	12	12	12
5	Computerized accounting practices:- A. VAT & VAT Report B. Service Tax C. Central Value Added Tax	13	13	13

	D. Income Tax - Tax Deducted at Source (TDS) Including entries with the help of Accounting Software. (Demonstration and Hands Experience.)			
6	Branch Accounts :- Stock and Debtors System :- Introduction - Types of Branches - Goods supplied at Cost & Invoice Price.	15	15	15
7	Single Entry System :- Conversion of Single Entry into Double Entry :- Introduction - Preparation of Cash Book - Total Debtor Account - Total Creditor Account - Final Accounts.	12	12	12
8	Analysis of Financial Statements :- Ratio Analysis :- Meaning - Objectives - Nature of Ratio analysis - Problems on Ratio Analysis restricted to the following Ratio only - *Gross Profit Ratio *Net Profit Ratio * Operating Ratio * Stock Turnover Ratio * Debtor Turnover Ratio * Current Ratio * Liquid Ratio * Debt to Equity Ratio.	12	12	12
	Total No. of lectures Taken	103	103	103

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

Subject Name -: Auditing & Taxation

Prof. G. M. Dhumal Div-: A

Prof. P. P. Oswal Div-:B+C

Unit No	Topic	No of lectures		
		A	B	C
1	Introduction to Principles of Auditing and Audit Process. Definition, Nature-objects-Advantages of Auditing-Types of errors and frauds Various Classes of Audit. Audit programme, Audit Note Book, Working Papers, Internal Control-Internal Check-Internal Audit	12	12	12
2	Checking, Vouching and Audit Report Test checking-Vouching of Cash Book-Verification and Valuation of Assets and Liabilities. Qualified and Clean Audit Report-Audit Certificate-Difference between Audit Report and Audit Certificate. Auditing and Assurance Standards. (AAS- 1,2,3,4,5,28,29)	12	12	12
3	Company Auditor Qualification, Disqualifications, Appointment, Removal, Rights, Duties and liabilities.	12	12	12
4	Tax Audit Definition of Accountant-Scope of Auditor's Role under Income Tax Act Compulsory Tax Audit- Certification for Claiming exemptions- Selective Tax Audit Tax Consultancy and Representation- Proforma of Computerized Systems.	13	12	12
5	Audit of Computerized Systems Auditing in an EDP environment-planning an audit in a computer Environment - problems encountered in an EDP environment- General EDP Control – EDP Application Control- System Development- Data transfer- Audit practice in relation to computerized systems-Computer Assisted Audit Techniques (Factors and Preparation of CAAT)	12	12	12
6	Important Concepts and Definitions under Income Tax Act-1961. Income, Person, Assessee, Assessment year, Pervious year, Agricultural Income, Exempted Income, Residential Status of an Assessee, PAN, TAN	12	12	12
7	Computation of Taxable Income under the different Heads of Income a. Income from Salary –	08	08	08

	Meaning of salary, Salient features of salary Allowances and tax Liability- Perquisites and their Valuation- Deductions from salary. (Theory and Problems) b. Income from House Property Basis of Chargeability Annual Value Self occupied and let out property Deductions allowed (Theory and Problems) c. Profits and Gains of Business and Professions Definitions, Deductions expressly allowed and disallowed (Theory And Problems) d. Capital Gains Chargeability-definitions-Cost of Improvement, Short term and long term Capital gains (Theory only) e. Income from other sources- Chargeability - deductions - Amounts not deductible.(Theory only)	04	04	04
		08	08	08
		04	04	04
8	Computation of Total Taxable Income of an Individual Gross total Income-deductions u/s-80C, 80ccc to 80 U – Income Tax calculation- (Rates applicable for respective Assessment year) Education cess	08	08	08
9	Miscellaneous Tax deducted at source-Return of Income-Advance payment of Tax methods of payment of tax-Forms of Return-Refund of Tax. (Theory)	04	04	04
10	Miscellaneous Tax deducted at source-Return of Income-Advance payment of Tax methods of payment of tax-Forms of Return-Refund of Tax. (Theory)	04	04	04
	Total No. of lectures Taken	113	112	112

Class: - T.Y.B.COM

Subject Name -: Business Administration

Special Paper II

Prof. T.B.Vehale Div-: C

Prof. S. A. Veer Div- B

Unit No	Topic	No of lectures	
		B	C
1	Human Resource function 1.1 Meaning, Objectives of Human Resource Function, Difference between H.R.M. and H.R.D. 1.2 Organization, Scope and functions of Human Resource Department in Modern Business. 1.3 Human Resource Planning – Nature and Scope, Job analysis - Job description - Job specification. 1.4 Emerging Concept of H.R.D. – Quality Circles –Kaizen - Voluntary Retirement Schemes.	15	15
2	Recruitment and Training 2.1 Methods or sources of Recruitment of manpower, Role of Recruitment Agencies- Selection Process. 2.2 Types of Interviews- Interview Techniques. 2.3 Objectives and importance of Training and Development. 2.4 Types and Methods of Training Programmes.	10	10
3	Employee Career and Succession planning 3.1 Aims and objectives of career planning. 3.2 Career Planning Process – Career Planning Structure. 3.3 Succession Planning - Meaning Need and importance. 3.4 Types of Career Opportunities A) Public Sector :- State and Local Government level - Personnel officer, Purchasing officer, secretary, Director of Administration Accountant etc. B) Private sector :-Marketing and Sales, Production and Material Management, Financial sector, Management as a profession, Insurance Industry, Accounting and Management Information System.	13	13
4	Performance Appraisal Management. 4.1 Concept and Importance. 4.2 Performance Appraisal Process. 4.3 Methods and Techniques. 4.4 Merits and limitations of performance appraisal.	12	12
5	Introduction 1.1 Meaning and scope of Marketing. 1.2 Objectives of Marketing. 1.3 Classification of marketing. 1.4 Functions of Marketing.	10	10
6	Marketing Mix 2.1 Meaning and Importance of Product, Product mix, product life cycle. New product development- Types of new product, Branding, Packaging, Labeling. 2.2 Price – Meaning, Factors affecting Pricing Decisions, Methods	15	15

	of Pricing. 2.3 Place – Functions of distribution channels, Types of distribution channels, Impact of technology on Distribution. 2.4 Promotion – Meaning of sales promotion, Importance, Methods and New techniques of sales promotion.		
7	Advertising 3.1 Advertising- Meaning, Scope, Importance, Role of advertising in modern business, Criticism on Advertising practices. 3.2 Advertising media – Different medias of advertising, Selection of advertising media. 3.3 Ethics in advertising- Ethics and appeals in Advertising, Advertising Standards Council of India. 3.4 Future of advertising – Advertising in depression and crisis, Employment opportunities in advertising field.	12	12
8	Modern Marketing Trends 4.1 Global marketing – Meaning, Scope, Importance, International marketing Challenges and Problems. 4.2 Marketing Research- Meaning, Scope and Methods of Marketing research. 4.3 Retailing- Meaning, New Trends in Marketing, Direct Marketing, Malls, Franchising. 4.4 Recent Trends in Marketing i) E-Marketing ii) Telemarketing iii) Internet Marketing iv) M-Marketing.	12	12
	Total No. of lectures Taken	99	99

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

**Subject Name :- Business Administration
Special Paper III**

Prof. H.S.Chaudhari Div- B
Prof. P.R.Arude Div:- C

Unit No	Topic	No of lectures	
		B	C
1	Finance :- 1.1 Money and Finance, Need, Nature and Importance of Finance. 1.2 Finance Functions, Objectives of Financial Management, Functions of Finance Manager. 1.3 Financial need of a modern business organization.	11	10
2	Financial Planning :- 2.1 Meaning, Nature and characteristics of financial planning. Scope, Importance, Advantages, Limitations, of Financial Planning . 2.2 Steps in financial planning. 2.3 Methods of estimating financial requirements.	13	12
3	Capitalization and Capital Structure :- 3.1 Capitalization – Concept, Factors governing capitalization, over and under capitalization - Causes and effects, Fair Capitalization. 3.2 Capital Structure- Meaning, Concept and Principles of capital structure, Factors influencing the pattern of capital structure. 3.3 Trading on equity- Concepts and effects.	14	14
4	Management of Capital :- 4.1 Types of capital- Fixed capital and working capital, owned and borrowed capital, Short and Long term Capital. 4.2 Need, Importance, Factors governing fixed and working capital requirement. 4.3 Sources of capital - Shares, Debentures, Public Deposits, Ploughing back of profits, Loans from Bank and Financial Institutions, Trade creditors, Installment credit etc	14	14
5	Production management Functions :- 1.1 Meaning, Definition, Functions of Production Management, Responsibilities of Production manager . 1.2 Production Planning - Objectives, Importance, levels of planning. 1.3 Routing & Scheduling - Meaning, Route Sheets, Scheduling, Master and sequential scheduling, scheduling devices. 1.4 Production control- Definition and meaning, Necessity, objectives, factors and techniques of production control	15	14

6	Plant Location and Plant Layout 2.1 Introduction, importance, factors responsible for plant location. 2.2 Plant Layout- Meaning, Definition, Importance of good layout, factors relevant for choice of layout, Line, Process and Product layout. 2.3 Plant Layout - Advantages, disadvantages and techniques.	11	10
7	Inventory management 3.1 Inventory management -Introduction, methods, and Norms. 3.2 EOQ, Use of Computers in Inventory Management, 3.3 Material Requisition Planning (MRP) , Just In Time (JIT),ABC Analysis.	10	10
8	Material Handling and supply chain management 4.1 Meaning, function of material handling, principles of material handling. 4.2 Common material handling devices fork lift truck, platform truck, straddle carrier, chain hoist, roller and belt conveyor, bridge crane, crawler crane. 4.3 Supply chain management- Theory, Principles, Implications, Factors affecting supply chain management.	15	14
Total No. of lectures Taken		103	98

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

Subject Name -: Cost and Works Accounting
Special Paper II

Prof. S.S.Thorat Div- A

Unit No	Topic	No of lectures
1	Overheads: 1.1.Meaning and definition of overheads. 1.2.Classification of overheads	06
2	Accounting of Overheads (Part-I) 2.1 Collection and Allocation of overheads. 2.2 Apportionment and Re-apportionment of overheads	14
3	Accounting of Overheads (Part-II) 3.1 Absorption - Meaning ,Methods of Overhead Absorption 3.4 Under and Over Absorption of overheads- Meaning, Reasons and Accounting treatment	20
4	Activity Based Costing 4.1 Definitions-Stages in Activity Based Costing 4.2 Purpose and Benefits of Activity Based Costing 4.3 Cost Drivers 4.4 Problems on Activity Based Costing [Simple Problems only]	08
5	Methods of Costing: 5.1 Introduction to Methods of Costing. 5.2 Job Costing- Meaning, Features, Advantages and Limitations	08
6	Contract Costing: 6.1 Meaning and Features of Contract Costing 6.2 Work Certified and Uncertified, Escalation clause, Cost Plus contract, work-in- progress 6.3 Profit on incomplete contract	16
7	Process Costing 7.1 Meaning and features of process costing 7.2 Preparation of process accounts including normal and abnormal loss/gain 7.3 Joint Products and By Products [Theory Only]	14
8	Service Costing: 8.1 Meaning, Features and Applications. 8.2 Cost Unit-Simple and composite 8.3 Cost Sheet for Motor transport service 8.4 Cost Statement for Hospital and Hotel Organization	10
	Total No. of lectures Taken	102

Syllabus Completion Report

Academic Year 2017-18

Class: - T.Y.B.COM

Subject Name -: Cost and Works Accounting
Special Paper III

Prof .G.M.Dhumal Div- A

Unit No	Topic	No of lectures
1	Marginal Costing: 1.1 Meaning and concepts- Fixed cost, Variable costs, Contribution, Profit-volume Ratio, Break-Even Point & Margin of Safety. 1.2 Cost-Profit-Volume Analysis- Assumptions and limitations of cost volume analysis 1.3 Application of Marginal Costing Technique:- Make or buy decision, Acceptance of export order & Limiting factors.	20
2	Budgetary Control: 2.1 Definition and Meaning of Budget & Budgetary control 2.2 Objectives of Budgetary control 2.3 Procedure of Budgetary control 2.4 Essentials of Budgetary control 2.5 Advantages and Limitations of Budgetary control 2.6 Types of Budgets.	12
3	Uniform costing and Inter-firm Comparison 3.1 Meaning and ,objectives 3.2 Advantages and disadvantages.	10
4	Introduction to management information system in Costing 4.1 Meaning , objectives and Advantages 4.2 Procedure of MIS	12
5	Standard Costing 5.1 Definition and meaning of standard cost & standard Costing . 5.2 Types of standards, setting up of Material & Labour Standards 5. 3 Difference between Standard Costing & Budgetary Control. 5.4 Advantages and Limitations of standard costing 5.5 Variance Analysis & its Significance 5.6. 1 Meaning, Types and Causes of Material & Labour variances.	20

	5.6. 2 Problems on Material & Labour variances.	
6	Farm Costing 6.1 Meaning and Features of Farm Costing 6.2 Advantages & Limitations of Farm Costing 6.3 Practical Problems	10
7	Cost Accounting Record Rules & Cost Audit: 7.1 Introduction to cost accounting record u/s 148 of the companies Act 2013 7.2 Cost records and Verification of Cost Records 7.3 Cost auditor – Appointment- Rights and duties	12
8	Cost Audit (Legal Provisions): 8.1 Cost Audit - Meaning, Scope, objectives & advantages of Cost Audit. 8.2 Cost Audit Report and Annexure to cost Audit Report. 8. 3 Introduction to Cost Accounting Standards issued by Institute of Cost and Management of India . 8.4 Generally accepted Cost Accounting principles.	16
	Total No. of lectures Taken	112

शैक्षणिक वर्ष 2017-18

17 जुन 2018

वेळ सा. 10:00

प्रकाश दि 17/06/2018 मध्ये बोर्डाची मी मी ए. ए. ए. (सी. ए.)
- विद्यार्थ्यांना काळोखी आवाजातून करायला पाठविले
- हाही सक्तीचा आवाज विद्यार्थ्यांना द्यावा करायला पाठविले

- विद्यार्थ्यांनी मी मी ए. ए. ए. (सी. ए.)

अ- विद्यार्थ्यांना बोर्डाच्या वेळ देणे

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Teaching Plan
F. Y. B. Sc. - Botany: 2017- 18
Morphology & Anatomy
(Term – II; Paper – I)

Sr. No	Month	Topics
1	Nov	Morphology Introduction, Definition and Scope. Descriptive and Interpretative. Importance in identification, nomenclature, classification, phylogeny and Plant breeding.
2	Dec	Morphology of Vegetative Parts Root: Types of roots, Modifications of roots: Epiphytic, Respiratory (Pneumatophores), Parasitic and Storage roots (conical, fusiform and napiform) with examples; functions of root. Stem: Modifications of Stem: Phylloclade, Runner, Stolon, Suckers, Offsets, Rhizome, Corm, Tuber and Bulb with examples. Functions of stem. Leaf: Parts of typical leaf: petiole, lamina; leaf margins and apices. Types of leaves: simple, compound, venation, phyllotaxy. Modifications: tendrils, spines, scale leaves, phyllode, reproductive and trap leaves (mechanism of trapping in Nepenthes only) with examples. Functions of leaf.
3	Jan & Feb	Morphology of Reproductive Parts Inflorescence: Types of inflorescence: Racemose (raceme, spike, corymb, umbel, catkin, spadix and capitulum), Cymose (solitary, monochasial, dichasial, polychasial), Special types (Verticillaster, Cyathium, and Hypanthodium) Significance. Flower: Parts of typical flower, Types of flower (complete, incomplete), symmetry of flower and insertion of floral whorls. Floral whorls: Calyx, corolla, perianth, aestivation, modifications of calyx (pappus, petaloid, spurred), forms of corolla: polypetalous (cruciform and papilionaceous) gamopetalous (infundibuliform, bilabiate), Androecium: structure of stamen, fixation of anthers, cohesion and adhesion; Gynoecium: structure of carpel. Types of placentations.
4	Feb	Fruit: Types of fruits: Simple and dry: Achene, Cypsela, Legume, Follicle and Capsule, Fleshy: Drupe, berry, Hesperidium and pepo. Aggregate: Etaerio of berries and Etaerio of follicles. Multiple fruits: Syconus and Sorosis. Seed: Parts, types, structural modifications for seed dispersal.
5	Feb & March	Anatomy Introduction, Definition, Importance in taxonomy, physiology, ecological interpretations, pharmacognosy and wood identification. Types of tissues Outline with brief description. Meristmatic tissues: - Meristem, characters and types based on origin, position and plane of division, functions. Vascular tissues:- Components of xylem and phloem, types of vascular bundles, functions. Epidermal tissues:- Epidermis, structure of typical stomata, trichomes,

		<p>motor cells; functions. Mechanical tissues:- Collenchyma, sclerenchyma and xylem with functions.</p> <p>Internal Organization of Primary Plant Body</p> <p>Internal structure of dicotyledon and monocotyledon root. Internal structure of dicotyledon and monocotyledon stem. Internal structure of dicotyledon and monocotyledon leaf.</p>
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Dr. Jagtap S.M.

Teaching Plan

F. Y. B. Sc. - Botany: 2017 - 18

Industrial Botany

(Term – II; Paper – II)

Sr. No.	Month	Topics
1	Nov	Bio-fuel Industry Introduction and advantages. Concept of biofuel and its need. Plants used for biofuel production. Biodiesel production from Caster. Commercial significance
2	Dec	Bio-pesticide Industry Concept of bio-control; Integrated Pest Management (IPM). Importance of bio pesticides. Types of bio pesticides: Indiar, Azadiractin. Commercial significance.
3	Jan	Industrial Mycology Introduction. Important genera of fungi used in various industries and their products. Products and applications of Trichoderma, Penicillium, Aspergillus and yeast. Commercial significance. Bio-Fertilizer Industry Bio fertilizers : concept and need . Types of bio-fertilizers: Nitrogen fixing bio fertilizer: Rhizobium, Bluegreen algae. Anabaena associated with Azolla. Phosphate solubilizing biofertilizer: Bacteria and Fungi.Commercial significance.
4	Jan	Fruit Processing Industry Fruit processing: concept and need. Cold storage. Types of fruit processing (canned fruits, dried fruit chips, fruit pulp, squash, jam, jelly, pickle and ketchups). Commercial significance.
5	Feb & March	Plant Pharmaceutical Industry Concept and advantages.Types of pharmaceutical products: Churna, Asava and Arishta. Drug plants with reference to botanical source, active principles and medicinal uses of Adathoda zeylanica, Tinospora cordifolia and Asperagus racemosus. Manufacture of Churna (Triphala churna), Arishta (Ashokarishta) and Asava (Kumariasava). Concept of nutraceuticals and cosmeceuticals. Commercial significance of Amla and Aloe.

Dr. Sangeetha J.S.

Teaching Plan
S. Y. B. Sc. [Botany]: 2017 - 18
Plant Anatomy and Embryology
(Semester II, Paper I)

Sr. No	Month	Topics
1	Nov & Dec	Plant anatomy: Introduction Definition, scope of plant anatomy and types of tissues Epidermal tissue system Structure and function of epidermal tissue system, uniseriate and multiseriate epidermis, stomata: structure, types and functions, epidermal outgrowth: glandular and non-glandular.
2	Dec	Mechanical tissue system Principles involved in distribution of mechanical tissues – inflexibility, incompressibility, inextensibility and shearing stress, tissues providing mechanical support, their distribution in leaf, stem and root of dicots and monocots. Vascular tissue system Structure and function of xylem, phloem and cambium Normal secondary growth Introduction, cambium and its role, process in stems of <i>Helianthus annuus</i> and <i>Annona squamosa</i> , extrastelar and intrastelar secondary growth, annual rings, periderm, bark, tylosis and lenticel Anomalous secondary growth Introduction, causes, anomalous secondary growth in dicot stem (<i>Bignonia</i>) dicot root (<i>Raphanus</i>) and monocot stem (<i>Dracaena</i>).
3	Jan	Plant Embryology Introduction Definition and scope of plant embryology Microsporangium and male gametophyte a. Microsporangium: structure of tetrasporangiate anther, types of tapetum, sporogenous tissue. b. Microsporogenesis: process and its types, types of microspore tetrad. c. Male gametophyte: structure and development of male gametophyte. Megasporangium and female gametophyte a. Megasporangium: structure, types of ovules – anatropous, orthotropous, amphitropous, campylotropous, circinotropous. b. Megasporesis: tenuinucellate and crassinucellate ovules, types of megaspore tetrads. c. Female gametophyte: structure of typical embryo sac, types of embryo sacs with examples – monosporic, bisporic and tetrasporic.

4	Feb	<p>Fertilization Mechanism of pollination- entomophily, anemophily, hydrophily, zoophily, germination of pollen grain, double fertilization (syngamy and triple fusion) and its significance.</p> <p>Endosperm and embryo a. Endosperm: Types – nuclear, helobial and cellular. b. Embryogeny: structure of dicot and monocot embryo and seed formation.</p>
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Prof. G.L.Bhor

Teaching Plan
S.Y.B.Sc. Botany: 2017 - 18
Plant Biotechnology
(Semester II, Paper II)

Sr. No.	Month	Topics
1	Nov	Introduction Biotechnology- Definition, concept and scope; Interdisciplinary nature of biotechnology.
2	Nov.	Enzyme Technology Introduction, definition and properties of enzymes; Classification of enzymes; Industrial applications of enzymes; Production of amylase, proteases and lipase enzyme; Enzymes immobilization- concept and techniques of immobilization.
3	Dec.	Fermentation Technology Introduction; Liquid and solid state fermentations; Principles of microbial growth; Bioreactors used in fermentations- stirred tank and tubular tower and digestive tank fermenters; Media composition for liquid and solid state fermentations; Industrial applications of fermentation; Downstream processing- citric acid production.
4	Dec.	Single cell protein Introduction, Need of proteins in diet, Production of SCP from algae (<i>Spirulina</i>) and fungi (Yeast).The economic implications of SCP, Acceptability of SCP.
5	Dec & Jan	Environmental Biotechnology Introduction; Phytoremediation- definition and concept; Methods of phytoremediation- Rhizofiltration, phytoextraction, phytostabilization, phytovolatilization, phytodegradation; Environmental sustainability.
6	Jan	Basics of plant genetic engineering Introduction and structure of DNA, Structure of gene in prokaryotes and eukaryotes- Promoter, coding region and terminator, General method of gene isolation from the plants-DNA isolation, restriction enzymes, restriction digestion of DNA. DNA electrophoresis, southern hybridization, ligation of DNA fragments, Gene cloning- vectors used for gene cloning.
7	Jan	Methods of gene transfer Direct gene transfer methods- Electroporation, biolistic gene transfer, liposome mediated transfer. Vector mediated gene transfer- Agrobacterium mediated gene transfer in plants, Ti-plasmid: structure and functions, Ti plasmid based vectors, advantages.
8	Feb	Application of plant genetic engineering in crop improvement. Introduction, Insect pest resistance, abiotic stress tolerance, herbicide resistance, storage protein quality.
9	Feb	Nano-biotechnology Definition and concept; Applications of nanotechnology in agriculture (fertilizers and pesticides).

Dr. K.M. Nitnaware

Departmental meeting held on 01 J
at 11.30 a.m for workload distribution

Thorat S R — F.Y.B.Sc — S-I and

Shah N.S — F.Y.B.Sc (Comp.Sci) — S-I
— F.Y.B.Com (Div-E, F, G)

Wayal V.M — F.Y.B.Sc (Comp.Sci) — S-I
— F.Y.B.Com (Div: A)
— F.Y.B.C.A — S-I

Thorat S R
Shah N.S
Wayal V.M

Fora
Nall
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1970-1971

2014-2015 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 83

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : Procedure Oriented Programming using C

Subject Teacher: Prof. V.R.Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Unit 1 : Introduction to C language History Basic structure of C Programming Language fundamentals Character set, tokens Keywords and identifiers Variables and data types Operators Types of operators Precedence and associativity Expression	06
2	December	Unit 2 : Managing I/O operations Console based I/O and related built-in I/O functions printf(), scanf() getch(), getchar() Formatted input and formatted output	2
3	December	Unit 3 : Decision Making and looping Introduction Decision making structure If statement If-else statement Nested if-else statement Conditional operator Switch statement Loop control structures while loop Do-while loop For loop Nested for loop Jump statements break	6

		continue goto exit	
4	December And January	Unit 4 : Functions and pointers Introduction Purpose of function Function definition Function declaration Function call Types of functions Call by value and call by reference Storage classes Recursion Introduction to pointer Definition Declaration Initialization Indirection operator and address of operator Pointer arithmetic Dynamic memory allocation Functions and pointers	12
5	January	Unit 5 : Arrays and Strings Introduction to one-dimensional Array Definition Declaration Initialization Accessing and displaying array elements Arrays and functions Introduction to two-dimensional Array Definition Declaration Initialization Accessing and displaying array elements Introductions to Strings Definition Declaration Initialization Standard library functions Implementations without standard library functions.	8
6	January And February	Unit 6 : Structures and union Introduction to structure Definition Declaration Accessing members structure operations nested structure Introduction to union Definition Declaration	5

		Differentiate between structure and union	
7	February	Unit 7 : C Preprocessor Definition of preprocessor Macro substitution directory File inclusion directory Conditional compilation	2
8	February And March	Unit 8 : File handling Definitions of files File opening modes Standard functions Random access to files Command line argument	9

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : Database Management Systems

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: File Structure and Organization Introduction Logical and Physical Files File File Structure Logical and Physical Files Definitions Basic File Operations Opening Files Closing Files Reading and Writing Seeking File Organization Field and Record structure in file Record Types Types of file organization Sequential Indexed Hashed Indexing What is an Index? When to use Indexes? Types of Index Dense Index Sparse Index	06
2	December	Chap No2: Database Management System Introduction Basic Concept and Definitions Data and Information Data Vs Information Data Dictionary Data Item or Field	14

	And January	Record Definition of DBMS Applications of DBMS File processing system Vs DBMS Advantages and Disadvantages of DBMS Users of DBMS Database Designers Application programmer Sophisticated Users End Users Views of Data Data Models Object Based Logical Model a. Object Oriented Data Model b. Entity Relationship Data Model Record Base Logical Model a. Relational Model b. Network Model c. Hierarchical Model Entity Relationship Diagram (ERD) Extended features of ERD Overall System structure	
3	January	Chap No3: Relational Model Introduction Terms a. Relation b. Tuple c. Attribute d. Cordinality e. Degree of relationship set f. Domain Keys Super Key Candidate Key Primary Key Foreign Key Relational Algebra Operations a. Select b. Project c. Union d. Difference e. Intersection f. Cartesian Product g. Natural Join	08
4	January	Chap No4: SQL (Structured Query Language) Introduction History Of SQL Basic Structure DDL Commands	12

		DML Commands Simple Queries Nested Queries Aggregate Functions	
5	February	Chap No5: Relational Database Design Introduction Anomalies of un normalized database Normalization Normal Form NF 2 NF 3 NF BCNF.	5

Subject wise Teaching Plan

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : E-Commerce Concepts

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Introduction to Electronic Commerce What is E-Commerce (Introduction and Definition) Main activities E-Commerce Goals of E-Commerce Technical Components of E-commerce Functions of E-commerce Advantages and Disadvantages of E-commerce Scope of E-commerce Electronic commerce Applications Electronic commerce and Electronic Business (C2C)(2G , G2G , B2P,B2A,P2P, B2A, C2A, B2B,B2C)	06
2	December	Chap No2: Building own website Reasons for building own website Benefits of website Bandwidth requirements Cost , Time , Reach Registering a Domain Name Web promotion Target email , Banner Exchange , Shopping Bots	07
3	December And January	Chap No3: Internet and Extranet Definition of Internet Adv and Dis adv of the Internet Component of a Intranet Information technology structure Development of a Intranet Extranet and Intranet Difference Role of Intranet in B2B Application	05
4	January	Chap No4: Electronic payment System Introduction Types of Electronic payment system	06

		Payment types Traditional payment Value exchange system Credit card system Electronic funds transfer Paperless bill Modern payment cash Electronic cash	
5	January	Chap No5: Technology Solution Protecting Internet Communications Encryption Symmetric Key Encryption Public key Encryption Public Key Encryption using digital signatures Digital Envelopes Digital Certificates Limitations to Encryption solutions	06
6	February	Chap No6: E-com Security E-commerce security environment Security threats in E-com environment Malicious code and unwanted programs Phishing and identity theft Hacking and cyber vandalism Credit card fraud/Theft Spoofing Denial of service(DOS) Distributed denial of service(dDOS)	06

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Object Oriented Programming Using C++

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Introduction to C++ Basic concepts of OOP, benefits, applications of OOP A simple C++ program Structure of C++ program Creating a source file, compiling and Linking	02
2	December	Chap No2: Tokens, Expressions and Control structures Introduction Tokens, keywords, Identifiers and constants Data types - Basic, User defined and Derived Symbolic constant Type Compatibility Variables - Declaration and Dynamic initialization Reference variable Operators in C++ Scope resolution operator .Member Referencing operators Memory management operators Manipulators Type cast operators Expression and their types Special Assignment Expressions Implicit conversions	03

		Operator overloading introduction Operator precedence Control structures – if-else, do-while, for , switch	
3	December	Chap No3: Functions in C++ Introduction The main function Function prototyping Call by reference Return by reference Inline function – Making an outside function Inline Arguments - default, constant Math library functions	05
4	January	Chap No4: Classes and Objects Introduction Creating a class and objects Defining member functions inside and outside class definition Nesting of member functions Private member functions Arrays within a class Memory allocation of objects Static data members and static member functions Array of objects Objects as function arguments Friend functions Returning objects Constructors Types of constructor Destructors	10
5	January And February	Chap No5: Inheritance Introduction Base class and derived class examples Types of Inheritance Virtual base class Abstract class Constructors in derived class	09
6	February	Chap No6: Polymorphism Compile Time Polymorphism Function overloading Operator Overloading Introduction	08

		Overloading unary and binary operator Overloading using friend function Overloading insertion and extraction operators String manipulation using operator overloading Runtime Polymorphism this Pointer, pointers to objects, pointer to derived classes Virtual functions and pure virtual functions	
7	February	Chap No7: Managing console I/O operations Introduction C++ streams and C++ stream classes Unformatted I/O operations Formatted console I/O operations Managing output with manipulators	03
8	March	Chap No8: Working with Files Classes for File Stream operations File operations - Opening, Closing and updating Error handling during File operations Command Line arguments	05
9	March	Chap No9: Templates Introduction Class Templates Function Templates Exception Handling(Introduction)	03

Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Programming in Visual Basic

Subject Teacher: Prof. V.A.Sandbhor

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Getting started with V. B. Object Oriented Concept Event Driven Programming Language Working with properties Studying the Events of a Form Working code for events Planning the Design	04
2	December	Chap No2: Constants, Variables , Operators, Control Structure, Looping & Array Constant Data Types 1 Number , long ,Boolean ,doubles ,variant, String 2.2.2 User defined data types Variables Operators Control Structures .1 If If....Else Nested If....Else Select Case Looping Do Loop While Loop	10

		Until Loop For Loop With Statement Array Single Dimensional Array Multidimensional Array Control Array Functions(Built in and user defined)	
3	December And January	Chap No3: Working with Controls Adding controls on form Working with Properties and Methods of each Controls Creating an application Creating MDI application Working with Multiple Forms Loading, Showing & Hiding Forms Setting the Startup form Creating forms in Code Using the MDI Arranging MDI Child Window Opening new MDI child window Creating Properties in a form Creating a method in a form	10
4	January	Chap No4: Working with ActiveX Controls & Menus Creating Status Bar For your program Working with Progress Bar Working with Toolbar Setting up the Image List Controls Adding and Deleting Images with code Study of Different Dialog Boxes Menus Creating new Menu Item Modifying & Deleting Menu Item Adding Access Characters Adding Shortcut Keys Creating Sub Menus Pop-up Menus Creating pop-up menu Displaying pop-up menu Adding & Deleting Menus At Run-time Adding Menu Items for MDI Child Form	12
5		Chap No5: Working With Database Data Control	12

	January And February	Studying the Properties and methods of Data Control Connectivity with MS-Access Operations of database through coding ADO Data Control Advantages of ADODC over DC Studying the properties and Methods of ADODC Connectivity with MS-Access Connectivity with Oracle Report Generation Developing ADO application through ADODC and coding Report Generation	
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Subject wise Teaching Plan

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Computer Networking

Subject Teacher: Prof. V.A.Sandbhor

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Basics of Computer Networks Computer Network Definition Goals Applications Structure Components Topology Bus Star Ring Mesh Types of Networks LAN, MAN, WAN, Internet Broadcast & Point-To-Point Networks Communication Types Serial Parallel Modes of Communication : Simplex Half Duplex Full Duplex Server Based LANs & Peer-to-Peer LANs Comparison of both Protocols and Standards	08
2		Chap No2: Network Models	08

	December	Design issues of the layer Protocol Hierarchy ISO-OSI Reference Model : .1 Layers in the OSI Model Functions of each layer Terminology SAP Connection Oriented services connectionless services Peer Entities Internet Model (TCP/IP) Comparison of ISO-OSI & TCP/IP Model Addressing Physical Addresses Logical Addresses Port Addresses IP Addressing Classful addressing Classless addressing	
3	January	Chap No3: Transmission Media Guided Media(Wired) : Coaxial Cable:- Physical Structure, Standards, BNC Connector, Applications Twisted Pair :- Physical Structure, UTP vs STP, Connectors, Applications Fiber Optics Cable :- Physical Structure, Propagation Modes (Single Mode & Multimode), Connectors, Applications Unguided Media(Wireless) Electromagnetic Spectrum For Wireless Communication Propagation Methods Ground, Sky, Line-Of-Sight Wireless Transmission Radio Waves Infra-Red, Micro-Wave	10
4		Chap No4: Wired and Wireless LANs IEEE Standards Standard Ethernet MAC Sublayer	10

	January	Physical layer Fast Ethernet MAC Sublayer Physical layer Gigabit Ethernet MAC Sublayer Physical layer Network Interface Cards(NIC) Components of NIC Functions of NIC Types of NIC Wireless LAN IEEE802.11 Architecture MAC Sub layer Frame Format Frame Types Addressing Mechanism Bluetooth (Architecture, Piconet and Scatternet, Applications)	
5	February	Chap No5: Network Connectivity Devices Categories of Connectivity Devices Passive & Active Hubs Repeaters Bridges Transparent Bridges(Loop Problem, Spanning Tree) Source Routing Bridges Switches Router Gateways Network Security Devices Firewalls Packet-Filter firewall Proxy firewall	06
6	February	Chap No6: Internet Basics Concept of Intranet & Extranet Internet Information Server(IIS) Web Server World Wide Web(WWW) Architecture, Web Documents :- static, dynamic and active documents Search Engines Internet Service Providers(ISP) HTTP	06

		HTTP Transaction Persistent and non persistent connection	
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Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Advanced Web Technologies

Subject Teacher: Prof. V.R.Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Introduction to Object Oriented Programming in PHP Classes Objects Introspection Serialization Inheritance Interfaces Encapsulation	06
2	December	Chap No2: Web Techniques Web Variables Server information Self Processing forms Setting response headers Maintaining state (Cookies and Sessions)	08
3	December And January	Chap No3: Databases Using PHP to access a databases Mysql Database functions Relational databases and SQL PEAR DB basics Advanced database techniques Sample application	08
4	January	Chap No4: XML What is XML? XML document Structure PHP and XML XML parser The document object model	08

		The simple XML extension Changing a value with simple XML	
5	February	Chap No5: Web services Web services concepts WSDL, UDDI Introduction to SOAP XML-RPC Creating web services Calling web services	08
6	February	Chap No6: Ajax Understanding java scripts for AJAX AJAX web application model AJAX –PHP framework Performing AJAX validation Handling XML data using PHP and AJAX Connecting database using PHP and AJAX	06

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Advanced Java

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: JDBC The design of JDBC Basic JDBC program Concept Drivers Architecture of JDBC Making the Connection, Statement , ResultSet , PreparedStatement, CollableStatement Executing SQL commands Executing queries	10
2	December	Chap No2: Networking The java.net package Connection oriented transmission – Stream Socket Class Creating a Socket to a remote host on a port (creating TCP client and server) Simple Socket Program Example.	07
3	January	Chap No3: Servlet and JSP Introduction How It differ from CGI Types of servlet Life cycle of servlet Execution process of Servlet Application Session Tracking Cookie class Servlet- Jdbc JSP Introduction to JSP Components of JSP	10

		Directives , Tags, Scripting Elements Execution process of JSP Application Building a simple application using JSP JSP with Database	
4	January And February	Chap No4: Multithreading Introduction to Thread Life cycle of thread Thread Creation - By using Thread Class - By Using Runnable interface Priorities and Synchronization Inter thread communication Implementation of Thread with Applet	08
5	February	Chap No5: Java Beans and RMI Java Beans What is bean Advantages Using Bean Development kit(BDK) Introduction to jar and manifest files The java beans API Remote Method Invocation Introduction to remote object RMI architecture Stubs and skeleton Registry Setting up RMI Using RMI with applet	09

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Recent Trends in IT

Subject Teacher: Prof. V.A.Sandbhor

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Software Process And Project Metrics, Analysis Concepts And Principles Measures, metric indicators, metric in process and the project domains, software measurement, metrics for software quality, software quality assurance, Requirement analysis, communication techniques, analysis principles, software prototyping, Case Study	06
2	December	Chap No2: Distributed Databases Standalone v/s Distributed databases, Replication, Fragmentation, Client / Server architecture, types of distributed databases Object – Relational Databases Abstract Data types, Nested Tables, Varying Arrays, Large Objects, Naming Conventions for Objects, Case Study	08
3	January	Chap No3: Data Warehouse What is Data Warehouse? , A Multidimensional Data Model, Data Warehouse Architecture, Data Warehouse Implementation, Data cube Technology, From Data Warehousing to Data Mining, Data Mining, Functionalities, Data Cleaning, Data Integration and Transformation, Data Reduction	08

4	January And February	Chap No4: Network Security Cryptography; Introduction to Cryptography, Substitution Ciphers, Transposition Ciphers, One-Time Pads, Two Fundamental Cryptographic Principles; Symmetric Key Algorithms; DES-The Data Encryption Standards, AES – The Advances Encryption Standard; Public Key algorithms; RSA, Other Public Key algorithms; Digital Signatures, Symmetric-Key Signature, Public key Signature, Message Digests	14
5	February	Chap No5: Computing and Informatics Introduction to computing, Types of computing: Cloud, Green, Soft, Mobile, Case Study	08

Subject wise Teaching Plan

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Software Testing

Subject Teacher: Prof. V.A.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES
1	December	Chap No1: Software Testing Introduction, Nature of errors, Testing principles & Testing fundamentals, Debugging	06
2	December	Chap No2: Approaches to Testing - I White Box Testing, Black Box Testing, Gray Box Testing, Unit Testing Integration- Top-down ,Bottom up Big Bang Sandwich	10
3	January	Chap No3: Testing for Specialized Environments Testing GUI's, Testing of Client/Server Architectures, Testing Documentation and Help Facilities, Testing for Real-Time Systems	10
4	January And February	Chap No4: Software Testing Strategies &Software metrics Validation Testing, System Testing, verification, Performance Testing, Regression Testing, Agile testing, Acceptance testing ,Smoke Testing ,Load Testing,	12

		Introduction, Basic Metrics, Complexity Metrics	
5	February	Chap No5: Specialized Testing & Testing Tools (Introduction) Test Case Design, Junit, Apache Jmeter, Winrunner Loadrunner, Rational Robot	06

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF GEOGRAPHY
Workload
ACADEMIC YEAR 2017-2018

Class	F.Y.B.A.		S.Y.B.A.		T.Y.B.A.		F.Y.B.COM.		TOTAL
Paper	Theory	Pract.	Theory	Pract.	Theory	Pract.	Theory	Pract.	
Grant	G1 -08	--	G2-08	S2- 3×6	G3-08	S4 3×6	Com G1 04	----	Grantable 76
	--	--	S1-04	18	S3- 04	18	--	--	
Grant Total	08	--	12	18	12	18	04	--	
Non Grant	08	--	--	--	--	--	--	--	Non Grant 04
Non Grant Total	--	--	--	--	--	--	--	--	
Total	16		12+18 = 30		12+18=30		04		80

Individual Workload Distribution Academic Year 2017 - 2018

Individual Workload		
Sr.No.	Name	Workload(Periods)
1	Prof. Muluk D. D.	20
2	Prof.D.M.Markad	20
3	Prof. Muluk M. L.	20
4	Prof. Modhave G. P.	20
	Total Periods	80

Head of Department
Department of Geography

Hutatma Rajguru Mahavidyalaya, Rajgurunagar.

Department of Geography.

Departmental Workload

Year 2017 - 2018

Sr.No.	Class	Subject	Strength	Workload (Periods)			Subject wise Details	
				Theory	Practical	Total	Name of the Teacher	Assigned Workload
[1]	[2]	[3]	[4]	[5]	[6]	[7]=[5]+[6]	[8]	[9]
F.Y.B.A.								
1	General 'A'	Fundamentals of Geomorphology (G1)	120	4	Nil	4	Prof. Muluk D. D.	4
2	General 'B'	Fundamentals of Geomorphology (G1)	120	4	Nil	4	Prof. Muluk D. D.	4
3	General 'C'	Fundamentals of Geomorphology (G1)	120	4	Nil	4	Prof. Muluk M.L.	4
4	General 'D'	Fundamentals of Geomorphology (G1)	87	4	Nil	4	Prof. Modhave G. P.	4
	Total		447	16	Nil	16	Total	16
S.Y.B.A.								
1	General 'A'	Geography of Disaster (G2)	287	4	Nil	4	Prof.D.M.Markad	4+2=6
2	General 'B'	Geography of Disaster (G2)		4		4	Prof. Modhave G. P.	2
3	Special	Tourism Geography (S1)	45	4	Nil	4	Prof.Muluk D.D.	4
4	Special	Practical Geography (S2)	45	0	18	18	Prof.D.M.Markad	6
5	Special	Practical Geography (S2)					Prof.Muluk M. L.	6
6	Special	Practical Geography (S2)					Prof. Modhave G. P.	6
	Total			12	18	30	Total	30
T.Y.BA								
1	General 'A'	Geography of India (G3)	190	4	Nil	4	Prof.D.M.Markad	4
2	General 'B'	Geography of India (G3)		4	Nil	4	Prof. Muluk D. D Prof. Modhave G.	2+2=4
3	Special	Population & Sett.Geography (S3)	37	4	Nil	4	Prof.Muluk M.L..	4
4	Special	Practical Geography (S4)	37	0	18	18	Prof.Muluk D.D.	6
5	Special	Practical Geography (S4)					Prof.Muluk M. L.	6
6	Special	Practical Geography (S4)					Prof. Modhave G. P.	6
	Total			12	18	30	Total	30
F. Y .B. Com.								
1	General	Commercial Geography	21	4	Nil	4	Prof.D.M.Markad	4
	Total			4	Nil	4		4
	Total		1027	44	36	80		80

Head of Department
Department of Geography

KTSP MANDELS
HUTATMA RAJGURU MAHAVIDYALYA,
RAJGURUNAGAR, TAL – KHED, DIST – PUNE.

Time Table

Name of Department: - Geography
Academic Year 2017 -2018

Prof. Muluk D. D. (Total Workload 20)

Sr. No.	Time	Monday	Tuesday	Wed.	Thurs.	Friday	Saturday
1	7.30 - 8.20		F.Y. (A)			F.Y. (A)	F.Y. (B)
2	8.20 – 9.10	F.Y.(A)		S1	S1	S1	S1
3	9.20 – 10.10	F.Y. (B)	F.Y. (B)	S4	S4	F.Y. (B)	F.Y. (A)
4	10.10 – 11.00			S4	S4		
5	11.00 – 11.50	G3	G3	S4	S4		
6	11.50 – 12.40						

Prof. Markad D. M. (Total Workload 20)

Sr. No.	Time	Monday	Tuesday	Wed.	Thurs.	Friday	Saturday
1	7.30 - 8.20	S2	S2	G3	G3	G3	G2 (A)
2	8.20 – 9.10	S2	S2		COM.G	COMG	COM.G
3	9.20 – 10.10	S2	S2	G2 (A)			
4	10.10 – 11.00					G2 (A)	G2 (B)
5	11.00 – 11.50	G3	G2 (A)	G2 (B)			
6	11.50 – 12.40			COM.G			

KTSP MANDELS
HUTATMA RAJGURU MAHAVIDYALYA,
RAJGURUNAGAR, TAL – KHED, DIST – PUNE.

Time Table

Name of Department: - Geography
Academic Year 2017 -2018

Prof. Muluk M.L. (Total Workload 20)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 - 8.20	S2	S2				FY C
2	8.20 – 9.10	S2	S2	FY C	FY C		
3	9.20 – 10.10	S2	S2	S4	S4	S3	S3
4	10.10 – 11.00	S3	S3	S4	S4	FY C	
5	11.00 – 11.50			S4	S4		
6	11.50 – 12.40						

Prof. Modhave G. P. . (Total Workload 20)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 - 8.20	S2	S2	G3	G3	G2	
2	8.20 – 9.10	S2	S2			FY D	FY D
3	9.20 – 10.10	S2	S2	S4	S4		
4	10.10 – 11.00			S4	S4		G2
5	11.00 – 11.50	FY D	FY D	S4	S4		
6	11.50 – 12.40						

Head of Department
Department of Geography

K-1000's
Mukunda Rajaram Mahalingappa Rajaramnagar, 21/10/17
Department of English
NOTICE

All the members of the Department of English are hereby informed that the meeting is held on 20-10-2017 at 11:30 am in English Lab. All are requested to attend the meeting.

Prof. A. G. Kulkarni
Head, the Dept of English

The above members were attend the meeting.

- 1) Prof. A. G. Kulkarni
- 2) Dr. H. J. Chavan
- 3) Dr. V. T. Rao
- 4) Prof. A. H. J.
- 5) Prof. S. S. Dhore
- 6) Prof. P. H. Kale

Prof.
Dr.
Dr.
Prof.
Prof.
Prof.

The following points were discussed in the meeting.

- * Final date of syllabus completion report and finding
- * Final date of attendance report and finding

Prof. A. G. Kulkarni
Head, the English Dept.



K.T.S.P.Mandal's

HUTATMA RAJGURU MAHVAIDYALAYA

RAJGURUNAGAR.Tal :- Khed, Dist :- Pune.410505

Faculty :- Mental Moral & Social Science

DEPARTMENT OF POLITICAL SCIENCE

(2017- 2018) Workload

Class	Subject Code	Lectures	Subject Paper
F.Y.B.A :	General Paper (G1)	= 16	Indian Government and Politics
S.Y.B.A :	General Paper (G2)	= 08	Political Theory and Concepts
S.Y.B.A :	Special Paper (S1)	= 04	Western political Thought
S.Y.B.A :	Special Paper (S2)	= 04	Political Sociology
T.Y.B.A :	General Paper (G3)	= 04	Political Ideology
T.Y.B.A :	Special Paper (S3)	= 04	Public Administration
T.Y.B.A :	Special Paper (S4)	= 04	International politics
Total Workload		= 44	

U.G -

Dr. Kailas Sonawane – 22

Dr. P.R.Jagtap - 22

P.G. – Full Time faculty

Dr. Kailas Sonawane

Head Of Department

Teacher Name - Dr. Kailas Sonawane - 2017-18

Sr. No	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30-8.20	F.Y (B) KBS	F.Y(B) KBS	F.Y (C) KBS	F.Y (B) KBS		F.Y (A) KBS
2	8.20-9.10	S 1 KBS	F.Y(C) KBS	F.Y.(A)KBS	S1 KBS	S 1 KBS	S 1 KBS
3	9.20-10.10	F.Y (C)KBS		S3 KBS	S 3 KBS	F.Y(C)KBS	S 3 KBS
4	10.10-11.00		S3 KBS		F.Y (A) KBS	F.Y (A) KBS	F.Y (B) KBS
5	11.00-11.50	F.Y(D)KBS		F.Y(D)KBS			

Teacher Name - Prof Dr. P.R. Jagtap – 2017-18

Sr. No	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30-8.20	F.Y (D) PRJ	G3 PRJ		F.Y (D) PRJ	G2 (A)PRJ	G2(A) PRJ
2	8.20-9.10	G2 PRJ	S 2 PRJ	S2 PRJ		G3 PRJ	G3 PRJ
3	9.20-10.10	S2 PRJ	S2 PRJ	G2(B) PRJ		S 4 PRJ	
4	10.10-11.00	S4 PRJ		S4 PRJ	S4 PRJ	G2(B) PRJ	G2 (A) PRJ
5	11.00-11.50		G2(B)PRJ	G2 (A) PRJ			

Dr. Kailas Sonawane

Head Of Department

Syllabus Completion Report

S. Y. B. Sc. [Botany]: 2017 - 18

Plant Physiology

(Semester I, Paper II)

Sr. No.	Month	Topic
1	June	Introduction to Plant Physiology Brief history, Scope and applications of plant physiology
2	July	Plant – water relations Physico-chemical properties of water, Membrane structure, permeability and aquaporin Diffusion – Definition, factors affecting diffusion, importance of diffusion in plants Osmosis – Definition, types of solutions – hypotonic, hypertonic and isotonic, endosmosis and exosmosis, concept of osmotic pressure (OP), turgor pressure (TP), wall pressure (WP), Diffusion pressure deficit (DPD), relation between OP, TP and DPD, role of osmosis in plants. Plasmolysis – Definition, mechanism, deplasmolysis, significance of plasmolysis Imbibition – Concept, mechanism and significance
3	July	Absorption of water Role of water in plants Concept of water potential and capillary water Mechanisms of water absorption Factors affecting rate of water absorption
4	July & August	Ascent of sap Introduction and definition. Theories of ascent of sap Vital theories: Jamin – Chame theory and Bose theory Physical force theories: a) Capillary theory, b) Imbibitional theory, c) Atmospheric pressure theory, Transpiration pull or cohesion-tension theory, evidences and objections Factors affecting ascent of sap
5	August	Transpiration Definition, Types of transpiration – cuticular, lenticular and stomatal , Structure of stomata, Mechanism of opening and closing of stomata –Steward's hypothesis, active K ⁺ transport mechanism Factors affecting the rate of transpiration Significance of transpiration, Antitranspirants, Guttation , Exudation

6	August & September	<p>Plant growth and plant growth regulators Introduction , Phases of growth Measurement of growth- Arc auxanometer, Bose crescograph, fresh and dry weight method, Factors affecting growth</p> <p>Plant Growth Regulators- Introduction and definition Properties and practical applications of auxins, cytokinins, gibberellins, ethylene and abscisic acid</p>
7	September	<p>Nitrogen metabolism Introduction, Biological nitrogen fixation, Symbiotic nitrogen fixation, nitrogenase enzyme- structure and function , Non-symbiotic nitrogen fixation ,Denitrification, ammonification and nitrification, Reductive amination and transamination Role of nitrogen in plants</p> <p>Seed dormancy and germination Definition and types of seed dormancy, Methods to break seed dormancy, Metabolic changes during seed germination .</p>
8	September & October	<p>Physiology of flowering Photoperiodism – Concept, definition, short day plants, long day plants and day neutral plants, Photoperiodic induction, phytochrome and flowering , Phytohormones and initiation of flowering , Applications of photoperiodism. Vernalisation – concept and definition, mechanism of vernalisation, applications of vernalisation, devernialization</p> <p>Revision and Question paper discussion</p>

Prof. G.L.Bhor

Syllabus Completion Report

S.Y.B.Sc. Botany: 2017 - 18

Taxonomy of Angiosperms and Plant Community

(Semester I, Paper I)

Sr. No.	Month	Topic
1	June & July	<p>Introduction to Plant Taxonomy Definition, scope, objectives and importance, Identification, classification, nomenclature, Concept of Systematics</p> <p>Systems of classification Types of systems with their merits and limitations a)Artificial system- Carl Linnaeus</p> <p>Systems of classification b)Natural system -Bentham and Hooker, c) Phylogenetic system- Engler and Prantl</p> <p>Taxonomic literature Flora, monograph, revisions, manuals, journals, periodicals and references books</p> <p>Botanical Nomenclature History, Binomial nomenclature, ICBN- principles, Rules of nomenclature, Coining of generic names and specific epithets, Ranks and endings of taxa names, Principle of priority, Effective and valid publications, Single and double authority citation, Nomina conservanda. .</p>
2	August	<p>Sources of data for Systematics Morphology, Anatomy,Cytology, Embryology, Phytochemistry, Molecular biology</p> <p>Study of Plant Families Study of following families with reference to systematic position, salient features, floral formula, floral diagram and any five examples with their economic importance. Annonaceae, Meliaceae, Myrtaceae, Rubiaceae, Solanaceae, Asclepiadaceae, Euphorbiaceae and Amaryllidaceae</p>

3	October	Computer in taxonomy Concept of herbarium their advantages and limitations, Digital /e-herbarium and their advantages, Data bases: concept and needs, Use of computer in plant classification. Revision and Question paper discussion
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Dr. K.M. Nitnaware

Syllabus Completion Report

S. Y. B. Sc. [Botany]: 2017 - 18

Taxonomy of Angiosperms and Plant Community

(Semester I, Paper I)

Sr. No.	Month	Topic
1	September	Ecological grouping of the plants Ecological grouping of the plants with reference to their significance of adaptive external and internal features: Hydrophytes, Mesophytes, Xerophytes, Halophytes with examples. Revision and Question paper discussion

Dr. S.M.Jagtap

Syllabus Completion Report

S. Y. B. Sc. [Botany]: 2017 - 18

Taxonomy of Angiosperms and Plant Community

(Semester I, Paper I)

Sr. No.	Month	Topic
1	September	Introduction to ecology Definition, Concept, Autecology and synecology, Ecosystem and its components: biotic and abiotic, Food chain, Food web, Ecological pyramids. Revision and Question paper discussion

Dr. Sangeetha J.S.

Syllabus Completion Report

F. Y. B. Sc. Botany: 2017 - 18

Plant Diversity

(Term – I; Paper I)

Sr. No	Month	Topics Covered
1	July	Introduction: General outline of plant kingdom, Introduction to plant diversity with reference to following groups:- Cryptogams: Thallophyta (Algae, Fungi, Lichens, And Bacteria), Bryophyta and Pteridophyta, Phanerogams: Gymnosperms and Angiosperms.
2	July & Aug	Algae: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Spirogyra</i> . Fungi: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Cystopus (Albugo)</i> .
3	Aug	Lichens: General characters, Nature of Association, Types of Lichens on the basis of thallus morphology, Economic importance of lichens. Bryophytes: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Riccia</i> .
4	Sep	Pteridophytes: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Nephrolepis</i> . Gymnosperms: General characters, Outline classification according to Chamberlain (1934) up to classes with reasons. Life cycle of <i>Cycas</i> .
5	Oct	Angiosperms: General characters, Causes of evolutionary success of Angiosperms, comparative account of monocotyledons and dicotyledons Revision & Question paper discussion Internal Theory Examination

Dr. Jagtap S.M.

Syllabus Completion Report

F. Y. B. Sc. Botany: 2017- 18

Industrial Botany

(Term – I; Paper II)

Sr. No	Month	Topics Covered
1	July	<p>Introduction to Industrial Botany Concept of Industrial Botany. Plant resources and industries: Food, fodder, fibers, medicines, timber, dyes, gum, tannins. (Two examples of each resource and the relevant industries with which they are associated).</p> <p>Floriculture Industry Introduction to floriculture. Important floricultural crops, open cultivation practices, harvesting and marketing of Tuberose. Greenhouse technology: Concept, advantages and limitations. Cultivation practices (greenhouse technology), harvesting and marketing of Rose and Gerbera.</p>
2	Aug	<p>Plant Nursery Industry Concept and types of nurseries: ornamental plant nursery, fruit plant nursery, medicinal plant nursery, vegetable plant nursery, orchid nursery, forest nursery (with reference to infrastructure required, outputs, commercial applications and profitability). Propagation methods: Seed propagation, natural vegetative propagation and artificial vegetative propagation (Cutting: Stem, Layering: Air layering, Grafting Stone grafting and Approach grafting, Budding : T budding).</p>
3	Sep	<p>Agri Industries: Organic Farming: Concept, need of organic farming, Types of organic fertilizers, advantages and limitations, Seed industries- Importance of seed industries, seed production, seed processing and seed marketing with reference to cotton. Major seed industries and corporations of India.</p> <p>Plant Tissue Culture Industry Concept of tissue culture. Culture techniques: Types of explants, preparation of media, methods of sterilization. Inoculation techniques, incubation and hardening. Commercial significance.</p>

4	Oct	<p>Mushroom Industries: Mushroom cultivation: Plant resources, cultivation practices of Oyster mushroom, uses of mushrooms, value added products, commercial significance</p> <p>Revision & Question paper discussion Internal Theory Examination</p>
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Dr. Sangeetha J.S.

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : Procedure Oriented Programming using C

Subject Teacher: Prof. V.R.Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Unit 1 : Introduction to C language History Basic structure of C Programming Language fundamentals Character set, tokens Keywords and identifiers Variables and data types Operators Types of operators Precedence and associativity Expression	06	05
2	December	Unit 2 : Managing I/O operations Console based I/O and related built-in I/O functions printf(), scanf() getch(), getchar() Formatted input and formatted output	02	03
3	December	Unit 3 : Decision Making and looping Introduction Decision making structure If statement If-else statement Nested if-else statement Conditional operator Switch statement Loop control structures while loop Do-while loop For loop Nested for loop	06	07

		Jump statements break continue goto exit		
4	December And January	Unit 4 : Functions and pointers Introduction Purpose of function Function definition Function declaration Function call Types of functions Call by value and call by reference Storage classes Recursion Introduction to pointer Definition Declaration Initialization Indirection operator and address of operator Pointer arithmetic Dynamic memory allocation Functions and pointers	12	13
5	January	Unit 5 : Arrays and Strings Introduction to one-dimensional Array Definition Declaration Initialization Accessing and displaying array elements Arrays and functions Introduction to two-dimensional Array Definition Declaration Initialization Accessing and displaying array elements Introductions to Strings Definition Declaration Initialization Standard library functions Implementations without standard library functions.	08	09
6		Unit 6 : Structures and union Introduction to structure Definition	05	06

	January And February	Declaration Accessing members structure operations nested structure Introduction to union Definition Declaration Differentiate between structure and union		
7	February	Unit 7 : C Preprocessor Definition of preprocessor Macro substitution directory File inclusion directory Conditional compilation	02	03
8	February And March	Unit 8 : File handling Definitions of files File opening modes Standard functions Random access to files Command line argument	09	10

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : Database Management Systems

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURE
1	December	Chap No1: File Structure and Organization Introduction Logical and Physical Files File File Structure Logical and Physical Files Definitions Basic File Operations Opening Files Closing Files Reading and Writing Seeking File Organization Field and Record structure in file Record Types Types of file organization Sequential Indexed Hashed Indexing What is an Index? When to use Indexes? Types of Index Dense Index Sparse Index	06	07
2	December	Chap No2: Database Management System Introduction Basic Concept and Definitions Data and Information Data Vs Information	14	13

	And January	Data Dictionary Data Item or Field Record Definition of DBMS Applications of DBMS File processing system Vs DBMS Advantages and Disadvantages of DBMS Users of DBMS Database Designers Application programmer Sophisticated Users End Users Views of Data Data Models Object Based Logical Model a. Object Oriented Data Model b. Entity Relationship Data Model Record Base Logical Model a. Relational Model b. Network Model c. Hierarchical Model Entity Relationship Diagram (ERD) Extended features of ERD Overall System structure		
3	January	Chap No3: Relational Model Introduction Terms a. Relation b. Tuple c. Attribute d. Cardinality e. Degree of relationship set f. Domain Keys Super Key Candidate Key Primary Key Foreign Key Relational Algebra Operations a. Select b. Project c. Union d. Difference e. Intersection f. Cartesian Product g. Natural Join	08	09
4	January	Chap No4: SQL (Structured Query Language)	12	13

		Introduction History Of SQL Basic Structure DDL Commands DML Commands Simple Queries Nested Queries Aggregate Functions		
5	February	Chap No5: Relational Database Design Introduction Anomalies of un normalized database Normalization Normal Form NF 2 NF 3 NF BCNF.	05	07

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBBA(CA)

Semester : SEM II

Subject : E-Commerce Concepts

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURE
1	December	Chap No1: Introduction to Electronic Commerce What is E-Commerce (Introduction and Definition) Main activities E-Commerce Goals of E-Commerce Technical Components of E-commerce Functions of E-commerce Advantages and Disadvantages of E-commerce Scope of E-commerce Electronic commerce Applications Electronic commerce and Electronic Business (C2C)(2G , G2G , B2G , B2P,B2A,P2P, B2A, C2A, B2B,B2C)	06	07
2	December	Chap No2: Building own website Reasons for building own website Benefits of website Bandwidth requirements Cost , Time , Reach Registering a Domain Name Web promotion Target email , Banner Exchange , Shopping Bots	07	08
3	December And	Chap No3: Internet and Extranet Definition of Internet Adv and Dis adv of the Internet Component of a Intranet Information technology structure	05	06

	January	Development of a Intranet Extranet and Intranet Difference Role of Intranet in B2B Application		
4	January	Chap No4: Electronic payment System Introduction Types of Electronic payment system Payment types Traditional payment Value exchange system Credit card system Electronic funds transfer Paperless bill Modern payment cash Electronic cash	06	07
5	January	Chap No5: Technology Solution Protecting Internet Communications Encryption Symmetric Key Encryption Public key Encryption Public Key Encryption using digital signatures Digital Envelopes Digital Certificates Limitations to Encryption solutions	06	07
6	February	Chap No6: E-com Security E-commerce security environment Security threats in E-com environment Malicious code and unwanted programs Phishing and identity theft Hacking and cyber vandalism Credit card fraud/Theft Spoofing Denial of service(DOS) Distributed denial of service(dDOS)	06	07

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Object Oriented Programming Using C++

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURE
1	December	Chap No1: Introduction to C++ Basic concepts of OOP, benefits, applications of OOP A simple C++ program Structure of C++ program Creating a source file, compiling and Linking	02	02
2	December	Chap No2: Tokens, Expressions and Control structures Introduction Tokens, keywords, Identifiers and constants Data types - Basic, User defined and Derived Symbolic constant Type Compatibility Variables - Declaration and Dynamic initialization Reference variable Operators in C++ Scope resolution operator .Member Referencing operators Memory management operators Manipulators Type cast operators Expression and their types	03	04

		Special Assignment Expressions Implicit conversions Operator overloading introduction Operator precedence Control structures – if-else, do-while, for , switch		
3	December	Chap No3: Functions in C++ Introduction The main function Function prototyping Call by reference Return by reference Inline function – Making an outside function Inline Arguments - default, constant Math library functions	05	06
4	January	Chap No4: Classes and Objects Introduction Creating a class and objects Defining member functions inside and outside class definition Nesting of member functions Private member functions Arrays within a class Memory allocation of objects Static data members and static member functions Array of objects Objects as function arguments Friend functions Returning objects Constructors Types of constructor Destructors	10	11
5	January And February	Chap No5: Inheritance Introduction Base class and derived class examples Types of Inheritance Virtual base class Abstract class Constructors in derived class	09	10
6	February	Chap No6: Polymorphism Compile Time Polymorphism	08	08

		Function overloading Operator Overloading Introduction Overloading unary and binary operator Overloading using friend function Overloading insertion and extraction operators String manipulation using operator overloading Runtime Polymorphism this Pointer, pointers to objects, pointer to derived classes Virtual functions and pure virtual functions		
7	February	Chap No7: Managing console I/O operations Introduction C++ streams and C++ stream classes Unformatted I/O operations Formatted console I/O operations Managing output with manipulators	03	03
8	March	Chap No8: Working with Files Classes for File Stream operations File operations - Opening, Closing and updating Error handling during File operations Command Line arguments	05	06
9	March	Chap No9: Templates Introduction Class Templates Function Templates Exception Handling(Introduction)	03	04

Syllabus completion Report

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Programming in Visual Basic

Subject Teacher: Prof. V.A.Sandbhor

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURE
1	December	Chap No1: Getting started with V. B. Object Oriented Concept Event Driven Programming Language Working with properties Studying the Events of a Form Working code for events Planning the Design	04	05
2	December	Chap No2: Constants, Variables , Operators, Control Structure, Looping & Array Constant Data Types 1 Number , long ,Boolean ,doubles ,variant, String 2.2.2 User defined data types Variables Operators Control Structures .1 If If...Else Nested If...Else Select Case Looping Do Loop While Loop Until Loop	10	11

		For Loop With Statement Array Single Dimensional Array Multidimensional Array Control Array Functions(Built in and user defined)		
3	December And January	Chap No3: Working with Controls Adding controls on form Working with Properties and Methods of each Controls Creating an application Creating MDI application Working with Multiple Forms Loading, Showing & Hiding Forms Setting the Startup form Creating forms in Code Using the MDI Arranging MDI Child Window Opening new MDI child window Creating Properties in a form Creating a method in a form	10	11
4	January	Chap No4: Working with ActiveX Controls & Menus Creating Status Bar For your program Working with Progress Bar Working with Toolbar Setting up the Image List Controls Adding and Deleting Images with code Study of Different Dialog Boxes Menus Creating new Menu Item Modifying & Deleting Menu Item Adding Access Characters Adding Shortcut Keys Creating Sub Menus Pop-up Menus Creating pop-up menu	12	13

		Displaying pop-up menu Adding & Deleting Menus At Run-time Adding Menu Items for MDI Child Form		
5	January And February	Chap No5: Working With Database Data Control Studying the Properties and methods of Data Control Connectivity with MS-Access Operations of database through coding ADO Data Control Advantages of ADODC over DC Studying the properties and Methods of ADODC Connectivity with MS-Access Connectivity with Oracle Report Generation Developing ADO application through ADODC and coding Report Generation	12	12

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBBA(CA)

Semester : SEM IV

Subject : Computer Networking

Subject Teacher: Prof. V.A.Sandbhor

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Chap No1: Basics of Computer Networks Computer Network Definition Goals Applications Structure Components Topology Bus Star Ring Mesh Types of Networks LAN, MAN, WAN, Internet Broadcast & Point-To-Point Networks Communication Types Serial Parallel Modes of Communication : Simplex Half Duplex Full Duplex Server Based LANs & Peer-to-Peer LANs Comparison of both Protocols and Standards	08	10
2		Chap No2: Network Models Design issues of the layer	08	08

	December	Protocol Hierarchy ISO-OSI Reference Model : .1 Layers in the OSI Model Functions of each layer Terminology SAP Connection Oriented services connectionless services Peer Entities Internet Model (TCP/IP) Comparison of ISO-OSI & TCP/IP Model Addressing Physical Addresses Logical Addresses Port Addresses IP Addressing Classful addressing Classless addressing		
3	January	Chap No3: Transmission Media Guided Media(Wired) : Coaxial Cable:- Physical Structure, Standards, BNC Connector, Applications Twisted Pair :- Physical Structure, UTP vs STP, Connectors, Applications Fiber Optics Cable :- Physical Structure, Propagation Modes (Single Mode & Multimode), Connectors, Applications Unguided Media(Wireless) Electromagnetic Spectrum For Wireless Communication Propagation Methods Ground, Sky, Line-Of-Sight Wireless Transmission Radio Waves Infra-Red, Micro-Wave	10	10

4	January	Chap No4: Wired and Wireless LANs IEEE Standards Standard Ethernet MAC Sublayer Physical layer Fast Ethernet MAC Sublayer Physical layer Gigabit Ethernet MAC Sublayer Physical layer Network Interface Cards(NIC) Components of NIC Functions of NIC Types of NIC Wireless LAN IEEE802.11 Architecture MAC Sub layer Frame Format Frame Types Addressing Mechanism Bluetooth (Architecture, Piconet and Scatternet, Applications)	10	10
5	February	Chap No5: Network Connectivity Devices Categories of Connectivity Devices Passive & Active Hubs Repeaters Bridges Transparent Bridges(Loop Problem, Spanning Tree) Source Routing Bridges Switches Router Gateways Network Security Devices Firewalls Packet-Filter firewall Proxy firewall	06	06
6	February	Chap No6: Internet Basics Concept of Intranet & Extranet Internet Information Server(IIS)	06	06

		Web Server World Wide Web(WWW) Architecture, Web Documents :- static, dynamic and active documents Search Engines Internet Service Providers(ISP) HTTP HTTP Transaction Persistent and non persistent connection		
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Syllabus Completion Report

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Advanced Web Technologies

Subject Teacher: Prof. V.R.Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Chap No1: Introduction to Object Oriented Programming in PHP Classes Objects Introspection Serialization Inheritance Interfaces Encapsulation	06	07
2	December	Chap No2: Web Techniques Web Variables Server information Self Processing forms Setting response headers Maintaining state (Cookies and Sessions)	08	08
3	December And January	Chap No3: Databases Using PHP to access a databases Mysql Database functions Relational databases and SQL PEAR DB basics Advanced database techniques Sample application	08	08
4	January	Chap No4: XML What is XML? XML document Structure PHP and XML XML parser	08	09

		The document object model The simple XML extension Changing a value with simple XML		
5	February	Chap No5: Web services Web services concepts WSDL, UDDI Introduction to SOAP XML-RPC Creating web services Calling web services	08	08
6	February	Chap No6: Ajax Understanding java scripts for AJAX AJAX web application model AJAX –PHP framework Performing AJAX validation Handling XML data using PHP and AJAX Connecting database using PHP and AJAX	06	07

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Advanced Java

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Chap No1: JDBC The design of JDBC Basic JDBC program Concept Drivers Architecture of JDBC Making the Connection, Statement , ResultSet , PreparedStatement, CollableStatement Executing SQL commands Executing queries	10	10
2	December	Chap No2: Networking The java.net package Connection oriented transmission – Stream Socket Class Creating a Socket to a remote host on a port (creating TCP client and server) Simple Socket Program Example.	07	07
3	January	Chap No3: Servlet and JSP Introduction How It differ from CGI Types of servlet Life cycle of servlet Execution process of Servlet Application Session Tracking Cookie class Servlet- Jdbc	10	10

		JSP Introduction to JSP Components of JSP Directives , Tags, Scripting Elements Execution process of JSP Application Building a simple application using JSP JSP with Database		
4	January And February	Chap No4: Multithreading Introduction to Thread Life cycle of thread Thread Creation - By using Thread Class - By Using Runnable interface Priorities and Synchronization Inter thread communication Implementation of Thread with Applet	08	09
5	February	Chap No5: Java Beans and RMI Java Beans What is bean Advantages Using Bean Development kit(BDK) Introduction to jar and manifest files The java beans API Remote Method Invocation Introduction to remote object RMI architecture Stubs and skeleton Registry Setting up RMI Using RMI with applet	09	09

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Recent Trends in IT

Subject Teacher: Prof. V.A.Sandbhor.

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Chap No1: Software Process And Project Metrics, Analysis Concepts And Principles Measures, metric indicators, metric in process and the project domains, software measurement, metrics for software quality, software quality assurance, Requirement analysis, communication techniques, analysis principles, software prototyping, Case Study	06	06
2	December	Chap No2: Distributed Databases Standalone v/s Distributed databases, Replication, Fragmentation, Client / Server architecture, types of distributed databases Object – Relational Databases Abstract Data types, Nested Tables, Varying Arrays, Large Objects, Naming Conventions for Objects, Case Study	08	08
3	January	Chap No3: Data Warehouse What is Data Warehouse? , A Multidimensional Data Model, Data Warehouse Architecture, Data Warehouse Implementation, Data cube Technology, From Data Warehousing to Data Mining, Data Mining, Functionalities, Data	08	08

		Cleaning, Data Integration and Transformation, Data Reduction		
4	January And February	Chap No4: Network Security Cryptography; Introduction to Cryptography, Substitution Ciphers, Transposition Ciphers, One-Time Pads, Two Fundamental Cryptographic Principles; Symmetric Key Algorithms; DES-The Data Encryption Standards, AES – The Advances Encryption Standard; Public Key algorithms; RSA, Other Public Key algorithms; Digital Signatures, Symmetric-Key Signature, Public key Signature, Message Digests	14	14
5	February	Chap No5: Computing and Informatics Introduction to computing, Types of computing: Cloud, Green, Soft, Mobile, Case Study	08	08

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBBA(CA)

Semester : SEM VI

Subject : Software Testing

Subject Teacher: Prof. V.A.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	December	Chap No1: Software Testing Introduction, Nature of errors, Testing principles & Testing fundamentals, Debugging	06	06
2	December	Chap No2: Approaches to Testing - I White Box Testing, Black Box Testing, Gray Box Testing, Unit Testing Integration- Top-down ,Bottom up Big Bang Sandwich	10	10
3	January	Chap No3: Testing for Specialized Environments Testing GUI's, Testing of Client/Server Architectures, Testing Documentation and Help Facilities, Testing for Real- Time Systems	10	10
4	January And February	Chap No4: Software Testing Strategies & Software metrics Validation Testing, System Testing, verification, Performance Testing, Regression	12	12

		Testing, Agile testing, Acceptance testing ,Smoke Testing ,Load Testing, Introduction, Basic Metrics, Complexity Metrics		
5	February	Chap No5: Specialized Testing & Testing Tools (Introduction) Test Case Design, Junit, Apache Jmeter, Winrunner Loadrunner, Rational Robot	06	07

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya,

Rajgurunagar Tal.-Khed Dist.-Pune-410505

Department of Computer Science

Teaching Plan

Academic Year -2017-18(Sem-I)

Sr.No.	Class	Subject Name	Teacher Name	Page No.
1	F.Y.B.Sc.(CS)	Problem solving using 'C'	Prof.P.Y.Jadhav	2
2	F.Y.B.Sc.(CS)	File Organization & Database Management System	Prof. A.S.Tanpure	4
3	F.Y.B.Sc.(CS)	Principles of analog Electronics	Prof.D.D.Kharmale	6
4	F.Y.B.Sc.(CS)	Principles of digital Electronics	Prof. A.P.Kulkarni	8
5	S.Y.B.Sc.(CS)	Data Structures Using 'C'	Prof.M.S.Salunke	9
6	S.Y.B.Sc.(CS)	Relational Database Management System	Prof. Y.D.Shinde	12
7	S.Y.B.Sc.(CS)	Digital System Hardware	Prof. A.P.Kulkarni	15
8	S.Y.B.Sc.(CS)	Analog systems	Prof. D.D.Kharmale	17
9	T.Y.B.Sc.(CS)	System Programming	Prof. Y.D.Shinde	19
10	T.Y.B.Sc.(CS)	Theoretical Computer Science	Prof.P.Y.Jadhav	23
11	T.Y.B.Sc.(CS)	Computer Networks-I	Prof. P.Y.Jadhav	26
12	T.Y.B.Sc.(CS)	Internet Programming-I	Prof. M.S.Salunke	30
13	T.Y.B.Sc.(CS)	Programming in Java-I	Prof. A.S.Tanpure	32
14	T.Y.B.Sc.(CS)	Object Oriented Software Engg.	Prof.M.S.Salunke	35

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Problem Solving Using 'C'

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	Chapter 1 : Problem Solving using Computers 1.1 Problem-Solving 1.2 Writing Simple Algorithms 1.3 Algorithms 1.4 Flowcharts	8
		Chapter 2 :Programming Languages as Tools 2.1 Machine language 2.2 Assembly language 2.3 High level languages 2.4 Compilers and Interpreters	3
		Chapter 3: Introduction to C 3.1 History 3.2 Structure of a C program 3.3 Functions as building blocks	1
2	AUGUST	3.4 Application Areas 3.5 C Program development life cycle 3.6 Sample programs	1
		Chapter 4 : C Tokens 4.1 Keywords 4.2 Identifiers 4.3 Variables 4.4 Constants – character, integer, float, string, escape sequences 4.5 Data types – built-in and user defined 4.6 Operators and Expressions Operator types (arithmetic, relational, logical, assignment, bitwise, conditional , other operators) , precedence and associativity rules.	11

3	SEPTEMBER	4.7 Simple programs using printf and scanf Chapter 5 : Input and Output 5.1 Character input and output 5.2 String input and output 5.3 Formatted input and output Chapter 6 :Control Structures 6.1 Decision making structures If, if-else 6.2 Loop Control structures While, do-while, for 6.3 Nested structures	1 3 8
4	OCTOBER	6.4 break and continue Chapter 7 Functions in C 7.1 What is a function 7.2 Advantages of Functions 7.3 Standard library functions 7.4 User defined functions:Declaration, definition, function call, parameter passing (by value), return keyword, 7.5 Scope of variables, storage classes 7.6 Recursion	2 10

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME -File Organization and Fundamental of Databases

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	Chapter 1 File Organization	8
		1.1 Introduction	
		1.2 Physical / logical files	
		1.3 Types of file organization (heap,sorted, indexed,hashed) 1.4	
		Choosing a file organization	
		Chapter 2 Introduction of DBMS	3
		2.1 Overview	
		2.2 File system Vs DBMS	
2.3 Describing & storing data (Data models	1		
2.4 Levels of abstraction			
2.5 Data independence			
2.6 Structure of DBMS			
2.7 Users of DBMS			
2.8 Advantages of DBMS			
2	AUGUST	Chapter 3 Conceptual Design (E-R model)	1
		3.1 Overview of DB design	11
		3.2 ER data model (entities , attributes, entity sets, relations, relationship sets)	
		3.3 Additional constraints (Key constraints, Mapping constraints, Strong & Weak entities, aggregation / generalization)	
		3.4 Conceptual design using ER modelling (entities VS attributes, Entity Vs relationship, binary Vs ternary, constraints beyond ER) 3.5 Case studies	

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME -Principles of Analog Electronics

SUBJECT TEACHER- Prof.D.D.Kharmale

[illegible]

		diode, zener diode, light emitting diode, photo diode, optocoupler, varactordiode , solar cell, clipper and clamper circuits Rectifiers (half and full wave), rectifier with capacitor-filter, Zener regulator, Block diagram of power supply .	
4	OCTOBER	Unit 4: Bipolar Junction Transistor and Circuits Bipolar Junction Transistor (BJT) symbol, types, construction, working principle,	12

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME - Principles of Digital Electronics

SUBJECT TEACHER- Prof. A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	Unit 1: Number Systems and Logic Gates Introduction to decimal, Binary and hexadecimal number systems and their inter-conversions, Signed and fractional binary number representations, BCD, Excess-3 and Graycodes, Alphanumeric representation in ASCII codes. Positive and Negative Logic, Basic Logic gates (NOT, OR, AND) & derived gates (NAND, NOR, EX-OR) Symbol and truth table, Applications of Ex-OR gates as parity checker and generator.	12
2	AUGUST	Unit 2: Boolean Algebra and Karnaugh maps Boolean algebra rules and Boolean laws: Commutative, Associative, Distributive, AND, OR and Inversion laws, DeMorgen's theorem, Universal gates. Min terms, Max terms, Boolean expression in SOP and POSform, conversion of SOP/POS expression to its standard SOP/POSform., Simplifications of Logic equations using Boolean algebra rules and Karnaugh map (up to 3 variables).	12
3	SEPTEMBER	Unit 3: Arithmetic Circuits Rules of binary addition and subtraction, subtraction using 1's and 2's complements, halfadder, full adder, Half subtractor, Full subtractor, Four bit parallel adder, Universal adder / subtractor, Digital comparator, Introduction to ALU.	12
4	OCTOBER	Unit 4: Combinational Circuits Multiplexer (2:1, 4:1),	3

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME – Data Structures using ‘C’
SUBJECT TEACHER-Prof. M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT 1. Introduction to data structures 1.1 Concept 1.2 Data type, Data object, ADT 1.2.1 Data Type 1.2.2 Data Object 1.2.3 ADT -Definition, Operation, examples on rational number 1.3 Need of Data Structure 1.4 Types of Data Structure	3
		UNIT 2. Algorithm analysis 2.1 Algorithm – definition, characteristics 2.2 Space complexity, time complexity 2.3 Asymptotic notation (Big O, Omega Ω)	2
		UNIT 3. Linear data structures 3.1 Introduction to Arrays - array representation 3.2 Sorting algorithms with efficiency - Bubble sort, Insertion sort, Merge sort, Quick Sort 3.3 Searching techniques –Linear Search, Binary search	6
		UNIT 4. Linked List 4.1 Introduction to Linked List 4.2 Implementation of Linked List – Static & Dynamic representation, 4.3 Types of Linked List	4

4	OCTOBER	8.3 Traversals – BFS and DFS 8.4 Applications – AOV network – topological sort, AOE network – critical path	1
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Relational Database Management System

SUBJECT TEACHER- Prof. Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	1. Relational Database Design 1.1 Preliminaries Functional Dependencies Basic concepts : Closure of a set of functional dependencies, Closure of attribute set, Canonical cover, Decomposition. 1.2 PL/PgSQL: Datatypes, Language structure 1.3 Controlling the program flow, conditional statements, loops 1.4 Views 1.5 Stored Functions, Stored Procedures 1.6 Handling errors and exceptions 1.7 Cursors 1.8 Triggers	14
		2 Transaction Concepts and concurrency control 2.1 Describe a transaction, properties of transaction, state of the transaction. 2.2 Executing transactions concurrently associated problem in concurrent execution.	2

2	AUGUST	<p>2.3 Schedules, types of schedules, concept of Serializability, precedencegraph for Serializability.</p> <p>2.4 Ensuring Serializability by locks, different lock modes, 2PL and its variations.</p> <p>2.5 Basic timestamp method for concurrency, Thomas Write Rule.</p> <p>2.6 Locks with multiple granularity, dynamic database concurrency (Phantom Problem).</p> <p>2.7 Timestamps versus locking.</p> <p>2.8 Deadlock handling methods</p> <p> 2.8.1 Detection and Recovery (Wait for graph).</p> <p> 2.8.2 Prevention algorithms (Wound-wait, Wait-die)</p> <p>3 Database Integrity and Security Concepts</p> <p>3.1 Domain constraints</p> <p>3.2 Referential Integrity</p> <p>3.3 Introduction to database security concepts</p>	<p>12</p> <p>4</p>
3	SEPTEMBER	<p>3.4 Methods for database security</p> <p> 3.4.1 Discretionary access control method</p> <p> 3.4.2 Mandatory access control and role base access control for multilevel security.</p> <p>3.5 Use of views in security enforcement.</p> <p>3.6 Overview of encryption technique for security.</p> <p>3.7 Statistical database security.</p> <p>4 Crash Recovery</p> <p>4.1 Failure classification</p> <p>4.2 Recovery concepts</p> <p>4.3 Log base recovery techniques (Deferred and Immediate update)</p> <p>4.4 Checkpoints</p> <p>4.5 Recovery with concurrent transactions (Rollback, checkpoints, commit)</p> <p>4.6 Database backup and recovery from catastrophic failure.</p>	<p>4</p> <p>8</p>

		5. Client-Server Technology 5.1 Describe client-server computing. 5.2 Evolution of Client - Server information systems. 5.3 Client – Server Architecture benefits. 5.4 Client Server Architecture - Components, Principles, Client Components - Communication middleware components - Database middleware components - Client Server Databases	4
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Digital System Hardware

SUBJECT TEACHER- Prof. A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1: Digital circuit design Introduction to digital circuit design, Circuit design using logic gates: Binary to gray converter, Gray to Binary converter, Decimal to BCD encoder Circuit design using state table/K-map: Design of Full adder, full subtractor, BCD to seven	12
		segment decoder, Concept of excitation table, Design of 3 bit synchronous up counter , 3 bit random sequence generator . UNIT- 2: Memory Memory Architecture, Memory Hierarchy, Introduction to USB storage device, Memory parameters (Access time, speed, capacity, cost), Vertical & horizontal Memory expansion (increasing the capacity, increasing word size),	4
2	AUGUST	Associative Memory, Cache memory, cache mapping techniques, virtual memory, virtual memory mapping (paging and segmentation).	8
		UNIT- 3: Computer Organization Concept of Address Bus, Data Bus, Control Bus. Register based CPU organization, stack organization, I/O organization: need of interface, block diagram of general I/O	8

		interface. Working concepts like polling,	
3	SEPTEMBER	<p>interrupt initiated data transfer. Concept of DMA , DMA transfer, DMA Controller Serial communication: Synchronous, asynchronous and their data transmission formats, RS–232, General block diagram of UART.</p> <p>UNIT- 4: Microprocessor Evolution of Microprocessor (8086 to Pentium 4), Features like address, data, bus size, speed, cache capacity, number of parallel instructions executed. Concept of RISC & CISC, Von-Neumann & Harvard Architecture, Concept of pipeline. Architecture of basic microprocessor: 8086 & Pentium (Basic Version), Introduction to multicore processors, its development and impact on Hardware, Software.</p>	<p>6</p> <p>10</p>

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Analog Systems

SUBJECT TEACHER- Prof.D.D.Kharmale

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	<p>UNIT -1: Analog Electronic System</p> <p>Introduction of analog electronic systems. Definition of sensors and transducers. Classification of sensors: Active and passive sensors. Specifications of sensors: Accuracy, range, linearity, sensitivity, resolution, reproducibility. Temperature sensors (LM-35 and AD590), pH sensor, piezoelectric humidity sensor, optical sensor (LDR), displacement sensor (LVDT), Passive Infrared sensor (PIR), tilt sensor, touch sensor, ultrasonic sensor</p> <p>UNIT- 2: Signal Conditioning</p> <p>Introduction to signal conditioning, Signal conditioning of passive sensors using bridge circuit: Wheatstone ’s bridge, Level Shifter, Amplifier,</p>	<p>14</p> <p>2</p>
2	AUGUST	Three OP-amp instrumentation amplifier, Filters; active and passive filters, Concept of Order of filters. Working principle of Single order Op-Amp based Low Pass Filter, High Pass Filter, Band Pass Filter, Notch Filter, Band reject filter; Working of Voltage to	12

		frequency Converter using OpAmp. UNIT- 3: Data Converters Digital to Analog Converter (DAC): Resistive divider, R-2R ladder, Parameters: Linearity, resolution, accuracy, Analog to Digital Converter	4
3	SEPTEMBER	(ADC): Types of ADC- Flash, Successive approximation, dual slope. Parameters of ADC: Linearity, resolution, conversion time, accuracy. Applications of DAC and ADC. UNIT – 4: Case studies Temperature monitoring system using LM35, Intruder detector system using PIR sensor, Water Level Indicator system using float switch, Electrocardiography (ECG).	8 8

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –System Programming
SUBJECT TEACHER- Prof.Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1: Introduction 1.1. Types of program – System program and Application program. 1.2. Difference between system programming and application programming. 1.3. Elements of Programming environment - Editor, Preprocessor, Assembler, Compiler, Interpreter, Linker and Loader, Debugger, Device drivers, Operating System. 1.4. Simulation of simple computer smac0 (hypothetical computer) - Memory, Registers, Condition Codes, Instruction format, Instruction Set, smac0 programs.	4
		UNIT- 2: Editors 2.1 Definition, need/purpose of editor. 2.2 Types of editor- Examples ed, sed, VIM & emacs 2.3 Structure of editor	2
		UNIT - 3 : Assembler 3.1 Definition. 3.2 Features of assembly language, advantages . 3.3 Statement format, types of statements – Imperative, Declarative, Assembler	10

		<p>Directive.</p> <p>3.4 Constants and Literals.</p> <p>3.5 Advanced assembler directives (LTORG, ORIGIN, EQU),</p> <p>3.6 Design of assembler – Analysis Phase and Synthesis Phase.</p> <p>3.7 Overview of assembling process</p> <p>3.8 Pass Structure of Assembler – One pass, Two pass assembler.</p> <p>3.9 Problems of 1-pass assembler - forward reference, efficiency, Table of Incomplete Instructions.</p> <p>3.10 Design of 2-pass Assembler – Pass-I and Pass-II</p> <p>3.11 Data structure of 2-pass assembler.</p> <p>3.12. Intermediate Code – Need, Forms-variant I and Variant II</p>	
2	AUGUST	<p>UNIT- 4 : Macros and Macro Processors</p> <p>4.1 Definition</p> <p>4.2 Macro definition and call 4.3 Macro expansion – positional and keyword parameters</p> <p>4.4 Design of Data structures to be used for Macro definition and use</p> <p>4.5 Nested macro calls</p> <p>4.6 Advanced macro facilities – alteration of flow of control during expansion, expansion time variable, conditional expansion, expansion time loops. (with examples)</p> <p>4.7 Design of macro preprocessor – Design overview, data structure, processing of macro definition and macro expansion</p> <p>4.8 Macro assembler – Comparison of macro preprocessor and macro assembler. Pass structure of macro assembler</p> <p>UNIT- 5: Compiler Design options</p> <p>5.1 Interpreter - Use of interpreter, definition, Comparison with compiler, Overview of interpretation, Pure and impure interpreter.</p>	<p>10</p> <p>02</p>

		<p>5.2 P-code compiler</p> <p>UNIT- 6: Linker and Loader</p> <p>6.1 Introduction</p> <p>6.2 Concept of bindings, static and dynamic binding, translated, linked and load time addresses.</p> <p>6.3 Relocation and linking concept – program relocation, performing relocation, public and external references, linking, binary program, object module.</p>	04
3	SEPTEMBER	<p>UNIT- 6: Linker and Loader</p> <p>6.4 Relocatability - nonrelocatable, relocatable, and self relocating programs (no algorithms), Linking for Overlays.</p> <p>6.5 Object file formats: a.out, ELF, COFF, EXE, PE and COM</p> <p>UNIT- 7: Debuggers & Development utilities</p> <p>7.1 Debugging functions and capabilities</p> <p>7.2 Types of debuggers: visual & console</p> <p>-Case study of ddd(visual) and gdb(console)</p> <p>7.3 Development utilities on UNIX/Linux strip, make, nm, objdump, intermediate files in compilation process etc.</p> <p>UNIT- 8: Operating System as System Software</p> <p>8.1 What Operating Systems Do – User View, System View, Defining OS</p> <p>8.2 Computer System Architecture – Single processor system, Multiprocessor systems, Clustered Systems</p> <p>8.3 Operating System Operations – Dual mode operation, Timer</p> <p>8.4 Process Management</p> <p>8.5 Memory Management</p> <p>8.6 Storage Management – File system management, Mass storage management, Caching, I/O systems</p> <p>8.7 Protection and Security</p> <p>8.8 Distributed Systems</p> <p>8.9 Special Purpose System – Real time embedded systems, Multimedia systems,</p>	<p>02</p> <p>06</p> <p>02</p>

		Handheld systems, 8.10 Computer Environment – Traditional computing, Client server computing, Peer to peer Computing UNIT-9: System Structure 9.1 Operating System Services 9.2 User Operating-System Interface – Command interpreter, GUI 9.3 System Calls 9.4 Types of System Calls – Process control, File management, Device management, Information maintenance, Communication, Protection	06
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ACADEMIC YEAR-2017-2018
SEM-I

Div:A

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1: Introduction 1.1 Symbol, Alphabet, String, Prefix & Suffix of Strings, Formal Language, Operations on Languages. 1.2 Regular Expressions (RE) : Definition & Example 1.3 Regular Expressions Identities.	03
		UNIT- 2: Finite Automata 2.1 Deterministic finite Automaton – Definition, DFA as language recognizer, DFA as a pattern recognizer. 2.2 Nondeterministic finite automaton – Definition and Examples. 2.3 NFA TO DFA : Method (From Book 4) 2.4 NFA with ϵ - transitions Definition and Examples. 2.5 NFA with ϵ -Transitions to DFA & Examples 2.6 Finite automaton with output – Mealy and Moore machine, Definition and Examples. 2.7 Minimization of DFA, Algorithm & Problem using Table Method.	12

2	AUGUST	<p>UNIT - 3 Regular Languages 3.1 Regular language-Definition and Examples. 3.2 Conversion of RE To FA-Examples. 3.3 Pumping lemma for regular languages and applications. 3.4 Closure properties of regular Languages (Union, Concatenation, Complement, Intersection and Kleene closure)</p> <p>UNIT- 4 : Context Free Grammar and Languages 4.1 Grammar - Definition and Examples. 4.2 Derivation-Reduction - Definition and Examples. 4.3 Chomsky Hierarchy. 4.4 CFG : Definition & Examples. LMD, RMD, ,Parse Tree 4.5 Ambiguous Grammar : Concept & Examples. 4.6 Simplification of CFG : 4.6.1 Removing Useless Symbols, 4.6.2 Removing unit productions 4.6.3 Removing ϵ productions & Nullable symbols 4.7 Normal Forms : 4.7.1 Chomsky Normal Form (CNF) Method & Problem 4.7.2 Greibach Normal form (GNF) Method & Problem 4.8 Regular Grammar : Definition. 4.8.1 Left linear and Right Linear Grammar-Definition and Example. 4.8.2 Equivalence of FA & Regular Grammar 4.8.2.1 Construction of regular grammar equivalent to a given DFA 4.8.2.2 Construction of a FA from the given right linear grammar 4.9 Closure Properties of CFL's(Union, concatenation and Kleen closure) Method and examples</p>	<p>05</p> <p>12</p>
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3	SEPTEMBER	UNIT- 5: Push Down Automaton 5.1 Definition of PDA and examples 5.2 Construction of PDA using empty stack and final State method : Examples using stack method 5.3 Definition DPDA & NPDA, their correlation and Examples of NPDA 5.4 CFG (in GNF) to PDA : Method and examples	06
		UNIT- 6: Turing Machine 6.1 The Turing Machine Model and Definition of TM 6.2 Design of Turing Machines 6.3 Problems on language recognizers. 6.4 Language accepted by TM 6.5 Types of Turing Machines(Multitrack TM,Two way TM, Multitape TM,Non-deterministic TM) 6.6 Introduction to LBA (Basic Model) &CSG.(Without Problems) 6.7 Computing TM, Enumerating TM, Universal TM 6.8 Recursive Languages 6.5.1. Recursive and Recursively enumerable Languages. 6.5.2. Difference between recursive and recursively enumerable language. 6.9 Turing Machine Limitations 6.10 Decision Problem, Undecidable Problem, Halting Problem of TM	10

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Computer Networks-I

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	<p>UNIT- 1. Introduction to Computer Networks</p> <p>1.1 Computer Networks- Goals and applications – Business Application , Home Application, Mobile User, Social Issues</p> <p>1.2 Network Hardware - Broadcast and point-to-point</p> <p>1.3 topologies – star, bus, mesh, ring etc.</p> <p>1.4 Network Types-LAN, MAN, WAN, Wireless Networks, Home Networks, Internetwork</p> <p>1.5 Data Communication-Definition, components, data representation, Data Flow</p> <p>1.6 Protocols & Standards De facto and De jure standard,</p> <p>1.7 Network Software - Protocol Hierarchies -layers, protocols, peers, interfaces Network architecture, protocol stack, Design issues of the layers – addressing, error control, flow control, multiplexing and demultiplexing, routing Connection-oriented and connectionless service, Service Primitives – listen, connect, receive, send, disconnect and Berkley Socket ,the relationships of services to protocols.</p> <p>UNIT- 2: Network Models</p>	<p>08</p> <p>05</p>

		<p>2.1 OSI Reference Model - Functionality of each layer</p> <p>2.2 TCP/IP Reference Model, Comparison of OSI and TCP/IP model</p> <p>2.3 TCP/IP Protocol Suite</p> <p>2.4 Addressing - Physical, Logical and Port addresses</p> <p>UNIT - 3 Transmission Media</p> <p>3.1 Twisted pair cable – UTP Vs STP, categories connectors & applications , Coaxial cable – standards, connectors & applications Fiber Optic cable – propagation modes, connectors & applications(No diagrams will be asked in examination)</p> <p>3.2 Unguided Media – Wireless- Radio Waves,- Microwaves, Infrared</p>	03
3	AUGUST	<p>UNIT - 3 Transmission Media</p> <p>3.3 Light wave transmission 3.4 Types of cabling and Networking Tool - CAT5 and CAT6 Cable Color Code, Crossover Cabling and Straight Through Cable, Crimping and Line testing tool</p> <p>UNIT - 4 The Physical Layer</p> <p>4.1 Analog and Digital data, Analog and Digital signals, Periodic & Non-periodic signals Digital Signals- Bit rate, bit length, baseband Transmission (no cases)</p> <p>4.2 Transmission Impairments – attenuation, distortion and noise, Data Rate Limits – Noiseless channel: Nyquist's bit rate, noisy channel : Shannon's law (Enough problems should be covered on every topic.)</p> <p>4.3 Performance of the Network Bandwidth, Throughput, Latency(Delay), Bandwidth –Delay Product, Jitter</p> <p>4.4 Line Coding Characteristics, Line Coding Schemes – Unipolar - NRZ, Polar-NRZ-I, NRZ-L, RZ, Manchester and Differential Manchester (Enough</p>	02 14

4	SEPTEMBER	<p>problems should be covered on every topic.)</p> <p>4.5 Transmission Modes, Parallel Transmission and Serial Transmission – Asynchronous and Synchronous and Isochronous</p> <p>4.6 Trunks & Multiplexing FDM and TDM</p> <p>4.7 Switching - Circuit Switching, Message Switching and Packet Switching, comparison of circuit & packet switching</p> <p>4.8 Physical Layer Devices Repeaters, Hubs- active hub Passive hub</p> <p>UNIT- 5: The Data Link Layer</p> <p>5.1 Design Issues – Services provided to the Network Layer , Framing – Concept, Methods - Character Count, Flag bytes with Byte Stuffing, Starting & ending Flags with Bit Stuffing and Physical Layer Coding Violations, Error Control, Flow Control</p> <p>5.2 Error detection code CRC (Enough problems should be covered on every topic.)</p> <p>5.3 Data Link Layer Protocols – Noiseless channel -A Simplex, Stop-And-Wait protocol, noisy channel –stop & wait, ARR, Pipelining, Go –back –N ARR & ARQ, selective repeat ARR(No examples & no algorithms)</p> <p>5.4 Sliding Window Protocols Piggybacking-Need, Advantages/Disadvantages, 1-bit sliding window protocols,</p> <p>5.5 Data Link Layer Protocols-HDLC – frame format, all frame types PPP – Use, Frame Format, Use of PPP in the Internet</p> <p>5.6 Data Link Layer Devices - Bridges – Filtering, Transparent Bridges, spanning tree and Source Routing Bridges, Bridges Connecting Different LANs</p> <p>5.7 Remote bridges</p>	09
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		UNIT- 6: The Medium Access Sublayer 6.1 Random Access Protocols ALOHA – pure and slotted 6.2 CSMA – 1-persistent, p-persistent and non-persistent CSMA/CD,CSMA/CA 6.3 Controlled Access Reservation, Polling and Token Passing 6.4 Channelization FDMA, TDMA and CDMA-Analogy, Idea, Chips, Data Representation, Encoding and Decoding, Signal Level, Sequence Generation(Enough problems should be covered on every topic.)	07
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Internet Programming-I
SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1. Introduction to web techniques 1.1 HTTP basics, Introduction to Web server and Web browser 1.2 Introduction to PHP 1.3 What does PHP do? 1.4 Lexical structure 1.5 Language basics	08
		UNIT- 2: Function and String 2.1 Defining and calling a function 2.2 Default parameters 2.3 Variable parameters, Missing parameters 2.4 Variable function, Anonymous function 2.5 Types of strings in PHP 2.6 Printing functions 2.7 Encoding and escaping	08
2	AUGUST	UNIT- 2: Function and String 2.8 Comparing strings 2.9 Manipulating and searching strings 2.10 Regular expressions	02
		UNIT - 3 Arrays 3.1 Indexed Vs Associative arrays 3.2 Identifying elements of an array 3.3 Storing data in arrays	06

3	SEPTEMBER	3.4 Multidimensional arrays 3.4 Extracting multiple values 3.5 Converting between arrays and variables 3.6 Traversing arrays 3.7 Sorting 3.8 Action on entire arrays 3.9 Using arrays UNIT - 4 Introduction to Object Oriented Programming 4.1 Classes 4.2 Objects 4.3 Introspection 4.4 Serialization 4.5 Inheritance 4.6 Interfaces 4.7 Encapsulation	08
		UNIT- 5: Files and directories 5.1 Working with files and directories 5.2 Opening and Closing, Getting information about file, Read/write to file, Splitting name and path from file, Rename and delete files 5.3 Reading and writing characters in file 5.4 Reading entire file 5.5 Random access to file data 5.6 Getting information on file 5.7 Ownership and permissions	06
		UNIT- 6: Databases (PHP- PostgreSQL) 6.1 Using PHP to access a database 6.2 Relational databases and SQL 6.3 PEAR DB basics 6.4 Advanced database techniques 6.5 Sample application (Mini project)	10

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Programming in Java-I

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1. An Introduction to Java 1.1 A Short History of Java 1.2 Features or buzzwords of Java 1.3 Comparison of Java and C++ 1.4 Java Environment 1.5 Simple java program 1.6 Java Tools – jdb, javap, javadoc 1.7 Java IDE – Eclipse/NetBeans (Note: Only for Lab Demonstration)	04
		UNIT- 2: 2. An Overview of Java 2.1 Types of Comments 2.2 Data Types 2.3 Final Variable 2.4 Declaring 1D, 2D array 2.5 Accepting input using Command line argument 2.6 Accepting input from console (Using BufferedReader class)	04
		UNIT- 3: 3. Objects and Classes 3.1 Defining Your Own Classes 3.2 Access Specifiers (public, protected, private, default) 3.3 Array of Objects 3.4 Constructor, Overloading Constructors and use of 'this' Keyword 3.5 static block, static Fields and methods 3.6 Predefined class – Object class methods (equals(), toString(), hashCode(), getClass()) 3.7 Inner class	08

2	AUGUST	<p>3.8 Creating, Accessing and using Packages</p> <p>3.9 Creating jar file and manifest file</p> <p>3.10 Wrapper Classes</p> <p>3.11 Garbage Collection (finalize() Method)</p> <p>3.12 Date and time processing</p> <p>UNIT- 4: Inheritance and Interface</p> <p>4.1 Inheritance Basics (extends Keyword) and Types of Inheritance 4.2 Superclass, Subclass and use of Super Keyword</p> <p>4.3 Method Overriding and runtime polymorphism</p> <p>4.4 Use of final keyword related to method and class</p> <p>4.5 Use of abstract class and abstract methods</p> <p>4.6 Defining and Implementing Interfaces</p> <p>4.7 Runtime polymorphism using interface</p> <p>4.8 Object Cloning</p> <p>UNIT- 5: Exception Handling 5.1</p> <p>Dealing Errors</p> <p>5.2 Exception class, Checked and Unchecked exception</p> <p>5.3 Catching exception and exception handling</p> <p>5.4 Creating user defined exception</p> <p>5.5 Assertions</p> <p>UNIT- 6: Strings, Streams and Files</p> <p>6.1 String class and StringBuffer Class</p> <p>6.2 Formatting string data using format() method</p> <p>6.2 Using the File class</p> <p>6.3 Stream classes Byte Stream classes Character Stream Classes 6.4 Creation of files</p>	<p>07</p> <p>04</p> <p>05</p>
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3	SEPTEMBER	<p>UNIT- 6: Strings, Streams and Files 6.5 Reading/Writing characters and bytes 6.6 Handling primitive data types 6.7 Random Access files</p> <p>UNIT- 7: User Interface Components with AWT and Swing 7.1 What is AWT ? What is Swing? Difference between AWT and Swing. 7.2 The MVC Architecture and Swing 7.3 Layout Manager and Layouts, The JComponent class 7.4 Components – JButton, JLabel, JText, JTextArea, JCheckBox and JRadioButton, JList, JComboBox, JMenu and JPopupMenu Class, JMenuItem and JCheckBoxMenuItem, JRadioButtonMenuItem , JScrollBar 7.5 Dialogs (Message, confirmation, input), JFileChooser, JColorChooser 7.6 Event Handling: Event sources, Listeners 7.7 Mouse and Keyboard Event Handling 7.8 Adapters 7.9 Anonymous inner class</p> <p>UNIT- 8: Applet 8.1 Applet Life Cycle 8.2 appletviewer tool 8.3 Applet HTML Tags 8.4 Passing parameters to Applet 8.5 repaint() and update() method</p>	<p>02</p> <p>10</p> <p>04</p>
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Object Oriented Software Engineering
SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	JULY	UNIT- 1: Object Oriented Concepts and Principles 1.1 What is Object Orientation ? - Introduction , Object , Classes and Instance , Polymorphism, Inheritance 1. 2 Object Oriented System Development- Introduction, Function/Data Methods (With Visibility), Object Oriented Analysis, Object Oriented Construction 1.3 Identifying the Elements of an Object Model 1.4 Identifying Classes and Objects 1.5 Specifying the Attributes (With Visibility) 1.6 Defining Operations 1.7 Finalizing the Object Definition	04
		UNIT- 2: Introduction to UML 2.1 Concept of UML 2.2 Advantages of UML	02
		UNIT- 3: Basic Structural Modeling 3.1 Classes 3.2 Relationship 3.3 Common Mechanism 3.4 Class Diagram (Minimum three examples should be covered)	05
		UNIT- 4: Advanced Structural Modeling 4.1 Advanced Classes 4.2 Advanced Relationship	05

		<p>Data Management Component, The Resource Management Component, Inter Sub System Communication 7.4 Object Design Process</p> <p>UNIT- 8: Architectural modeling 8.1 Component 8.2 Components Diagram (Minimum two examples should be covered) 8.3 Deployment Diagram (Minimum two examples should be covered) 8.4 Collaboration Diagram (Minimum two examples should be covered)</p> <p>UNIT- 9: Object Oriented Testing 9.1 Object Oriented Testing Strategies 9.2 Test Case Design for Object Oriented Software 9.3 Inter Class Test Case Design</p>	<p>06</p> <p>05</p>
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K.T.S.P. Mandal's Hutatma Rajguru Mahavidyalaya

Rajgurunagar, Tal. Khed Dist. Pune

Department of Chemistry Syllabus completion Report- 2017-18

Sr. No.	Class	Subject Name	Total Divisions	Subject Teacher	Page No.
1	F.Y.B.Sc	1. Physical & Inorganic Chemistry 2. Organic & Inorganic Chemistry 3. Practical Paper	2	1. Prof. N.D. Dongare 2. Prof. M.K. Hase 3. Prof. N.V Gundal. 4. Prof. S.G.Muthe 5. Prof. S.N. Mande 6.Prof.V.M.Shelar	2 To 10
2	S.Y.B.Sc.	1. Physical & Analytical Chemistry 2. Organic & Inorganic Chemistry 3. Practical Paper	2	1. Dr. S.B. Suryawanshi 2. Prof. S.S. Kolekar 3. Prof. Y.S Walunj. 4. Prof. M.K.Hase 5. Prof. S.N. Mande 6. Prof. N.V. Gundal	10 To 18
3	T.Y.BSc.	1. Physical Chemistry 2. Inorganic Chemistry 3. Organic Chemistry 4. Analytical Chemistry 5. Industrial Chemistry 6. Agricultural & Dairy Chemistry 7. Physical Practical 8.Inorganic Practical 9. Organic Practical	1	1. Dr. S.B. Suryawanshi 2. Prof. S.S. Kolekar 3. Dr. P.S. Kulkarni 4. Prof. Y.S. Walunj 5. Prof. N. D. Dongare 6. Prof. M.K.Hase 7. Prof. S.N. Mande	19 To 50

K.T.S.P. MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
F.Y.B.Sc. Physical and Inorganic chemistry (Paper I)
Syllabus completion Report- 2017-18 (SEM-I) No. Of Lectures per week-03
Name of Teacher: Prof. Dongare N.D., Prof. Kolhe M.P., Prof.S.G.Muthe.

Month	Chapter	Topic Name	No. of lectures
July 2017	State of Matter	Physical Chemistry Introduction: State of matter & their properties. Gaseous state: Significance of ideal & kinetic gas equation, real gases compressibility factor, Vander wall equation of state, isotherms of CO ₂ critical constant, correlation between critical constant and Vander Waal's constant. Liquid state: properties of liquid, comparison between gaseous and solid state. Home Assignment 1	08L
August 2017	Chemical mathematics	Function & variables: variables as function, variables used in chemistry. Derivative: Rules of differentiation, ex. on Derivative of algebraic, logarithmic & exponential functions, partial differentiation. Condition for maxima & minima. Integration: Rules of integration, integration definite & indefinite, problems related to chemistry. Graph: Plotting graphs of linear, exponential, & logarithmic functions and their characteristics, sketching of s & p orbital's. concentration for example strength, normality, etc	08L
September 2017	Surface Tension	Colloids Preparation, purification, Optical properties, Tyndall effect, shape and size, stability, solvation, interaction between, colloids, solution, emulsions and gels. Catalysis Catalyst and catalysis, positive and negative catalysis, Type of catalysis, Characteristics of catalytic reactions, promoters,	

		Catalytic poisoning , Theories of catalysis, Active centre on catalyst surface, Adsorption theory and catalytic activity, Acid – Base catalysis, Enzyme catalysis, Mechanism of enzyme catalysis, characteristics of enzyme catalysis, application of catalysis in industries. Autocatalysis, negative catalysis, Activation energy and catalysis. Internal -1	
Sept/Oct 2017	Mole concept	Inorganic Chemistry Mole concept-Determination of mol, Weight by grams molecular volume relationship, problems based on mole concept. Methods of expressing Assignment -2	12 L
Oct 2017	Oxidation And Reduction	Defination of oxidation and reduction ,Rules for calculate oxidation state ,problem ,balance reaction by different method	8L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18 Sem.-I Class: F. Y. B. Sc. Chemistry,
Name of Paper: Organic & Inorganic Chemistry (Paper II)
No. of Lectures allotted per week: 03
Name of Teacher: Prof. Dongare N.D., Prof. Khangate.D.M, Prof.S.N.Mande

Month	Name of Chapter	Topic Covered	Lectures
July-2017	Chemical bonding, structure & reactivity of organic molecules	Covalent bond, Hybridization in organic molecules (sp ³ , sp ² , sp), bond length, bond angles, bond energies, Inter & Intra molecular forces & their effects on physical properties. Structural effects like inductive, Resonance, Hyper conjugation, steric effect, Hydrogen bonding. Application of Structural effect. Assignment 1 Surprise test	14 L
Aug-2017	Chemistry of Hydrocarbon Alkenes, dienes & alkynes	Introduction, Nomenclature, Physical properties, General methods of preparation, chemical reaction of – Alkanes. Introduction, Nomenclature, Physical properties, General methods of preparation, chemical reaction of – Alkenes, alkynes & dienes.	10L
Sept-2017	Homocyclic & polycyclic aromatic hydrocarbons	Introduction to homocyclic & polycyclic aromatic hydrocarbons (benzene, naphthalene, anthracene), Huckel's rule of aromaticity. Internal -1	8L
Oct-17	Chemistry of S-block elements	Recapitulation of periodic table, special position of hydrogen in the long form of the periodic table, electronic configuration. Assignment -2	8L

K.T.S.P. MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
F.Y.B.SC.: Physical chemistry & Inorganic Chemistry (Paper I)
Syllabus completion Report- 2017-18 (Sem-II) NO. Of Lectures per week-03
Name of Lecturer - Prof. Dongare N.D., Prof. Kolhe M.P., Prof.Muthe.S.G.

Month	Chapter	Topic Name	No. of lecture
Dec. 2017	Atomic Structure	Physical Chemistry Historical Development, Daltons atomic theory, Limitation of Daltons atomic theory, Electron, its discovery and properties. e/m ratio of electron by Thomson's method Charge on electron by Millikens oil drop method, Proton- its discovery and properties, 'Thomson's Atomic model and its drawbacks. Rutherford's alpha particles scattering experiments, Rutherford's atomic model and its drawbacks. Prouty's hypothesis, Moseley experiment and its importance. The Neutron – its discovery and properties, atomic spectra. Ritz – combination principle, Bohr's model of hydrogen atom, postulates, derivation for its radius and energy. Application of Bohr's theory, spectra and ionization potential of hydrogen, Limitations of Bohr's theory, spectra and ionization potential of hydrogen, Limitations of Bohr's theory, Quantum number, Pauling's Exclusion principle, Hund's principles of maximum multiplicity and Aufbau's principle. Assignment-1	8L
Jan/Feb 2018	Chemical Thermodynamics	Limitation of first law/ Necessity to study second law of thermodynamics. Cyclic process such as Carnot's cycle.Operation of Carnot's cycle to determine thermodynamic efficiency. Statement of second law based on thermodynamic efficiency.Entropy of a system.Mathematical definition of entropy (i.e. $S = q_{rev}/T$) Entropy	8L

		<p>changes for system and surroundings for reversible and irreversible process. Entropy changes for an ideal gas in isothermal, isobaric and isochoric process. Entropy changes in chemical reaction. Mathematical preparation for physical Chemistry By F. Daniel, Mc. Graw Hill publication. University General Chemistry. By C.N. R. Rao Mc. Millan Publication. Principles of Physical Chemistry. By Maron and Pruton 4th Ed. Oxford and IBH publication. Physical Chemistry. By G.M. Barrow.</p> <p>Assignment -2</p>	
Feb-18	Concept of Hybridisation	<p>Definition, need of hybridisation, steps involved in hybridisation, explanation of covalency of atom in the moles based on hybridisation, types of hybridisation involving s, p & d orbital's. Applications of hybridisation geometries of different molecules</p> <p>Internal-2</p>	5L
Mar -18	VSPER Theory	<p>Assumptions, need of theory, application of theory of explain geometry of irregular molecules. i) Cl_2O ii) ClF_3 iii) TeCl_4 iv) XeOF_4 v) XeO_3 vi) BrF_5</p>	4L
Mar -18	Chemical bonding and structure	<p>i) Attainment of stable configuration. ii) types of bonds a) ionic, b) covalent c) Coordinate d) metallic (Ref.1) iii) Types of overlap, formulation of σ and π bonds S – S overlap, P-P overlap, p-d overlap with suitable examples (Ref.1) iv) Theories of bonding, Valence bond theory a) Hitler London theory and b) Pauling Slater theory</p>	4 L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18 Class: F. Y. B. Sc. Chemistry Sem.- II
Name of Paper: Organic & Inorganic Chemistry (Paper II)

No. of Lectures allotted per week: 03

Name of Teacher: Prof. Dongare N.D., Prof. Gundal N. V.

Month	Name of Chapter	Topic Covered	Lectures
Dec-17	Chemistry of functional groups	Alkyl halide- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis of alkyl halides. Alcohols & ethers :- Introduction, physical properties, Reactions of alcohols, industrial sources of ethyl alcohol, proof, spirit, denatured spirit, absolute alcohol, analysis of alcohols. <ul style="list-style-type: none"> • Assignment -1 	10L
Dec-17	Stereochemistry	Concept of Stereochemistry, Types of isomers, conformational isomerism in alkanes, Geometrical isomerism :- Definition, E/Z nomenclature of geometrical isomers, Optical isomerism:- Isomer no, chirality, specific rotation, enantiomerism, R/S nomenclature. <ul style="list-style-type: none"> • Assignment-2 	10L

Jan-18	functional groups	Aldehydes & ketones:- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis of aldehydes & ketones. Carboxylic acid, Amines, Phenols:- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis. • Assignment-3	12L
Feb-18	Chemistry of P-block element	Position of elements in periodic Table, Electronic configuration, Periodic trends in Properties viz. size of atom, ion, oxidation state, ionization potential, & reactivity. Structure & Properties of i. Borates ii. Halides of Aluminum ii. Allotropes of carbon iv. classification of silicates Inter halogen compounds Internal-2	10L
Mar-18		Question paper solving. Guidance to the student regarding examination.	03L

K.T.S.P.Mandal'S
Hutatma Rajguru MahavidyalaRajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18
Class: F. Y. B. Sc. Chemistry, Term: Ist and IInd

Name of Paper: Chemistry practical No. of Lectures allotted per Batch: 04

Sl. No.	Date	Name of Practicals
1.	July	Sketch the polar plots of s and p orbitals.
2.	Aug	Plot the graph of following functions using excel a) exponential function b) logarithmic function c) linear functions
3.	Aug	To determine the gas constant R in different units by eudiometer method
4.	Aug	To determine relative viscosity of given organic liquids by viscometer.
5.	Aug	To determine ΔH and ΔS for the following chemical reactions $Zn(s) + CuSO_4(aq) \rightarrow Cu(s) + ZnSO_4(aq)$ ii) $3Mg(s) + 2FeCl_3(aq) \rightarrow 2Fe(s) + 3MgCl_2(aq)$
6.	Sep	Investigate the adsorption of acetic acid by activated charcoal and test the validity of Freundlich /Langmuir adsorption isotherm.
7.	Sep	Determination of hardness of water from a given sample of water by EDTA method.
8.	Sep	Analysis of alkali mixture by volumetric method
9.	Sep	Mixture-1 (water soluble)
10.	Dec	Mixture-2 (water insoluble)
11.	Dec	Mixture-3 (water insoluble)
12.	Dec	To standardize NaOH solution & hence find the strength of given HCl solution.
13.	Dec	Estimation of % purity of a given sample of sodium chloride
14.	Jan	Techniques Crystallization with M.P. and % yield of purified compound
15.	Jan	Sublimation with M.P. and % yield of purified compound
16.	Jan	To determine amount of aspirin in APC tablets
17.	Jan	Organic qualitative analysis of single organic compound Compound 1
18.	Feb	Compound 2
19.	Feb	Compound 3
20.	Feb	Compound 4
21.	Feb	Internal examination

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18 Class: S. Y. B. Sc. Sem.-I
Name of Paper: Physical & Analytical Chemistry (Paper I)
No. of Lectures allotted per week: 04
Name of Teacher : . Dr. S.B. Suryawanshi Prof. Walunj Y.S. Prof. HaseM.K.

Month	Chapter	Topic Coverd	Lectur es
July-17	Elementary chemical Kinetics	Introduction to chemical Kinetics, molecularity & Order of reaction, reaction rates, rate laws, rate constant & its significance. Integrated rate law expression & its characteristics –first order, second order(single reactant,two reactant involved),examples of 1 st &2 nd order reaction,pseudo molecular reactions,factors affecting rate of reaction,measurement of rate of reaction,numericals. Assignment No-1	10L
Jully-17	Photochem istry	Introduction,thermal reactions & photochemical reactions, law of photochemistry,quantum yield, measurement of quantum yield,types of photochemical reactions- photosynthesis, photolysis, photocatalysis, photosensitization,photo-physical processes- fluorescence,phosphorescence,quenching,chemilumini scence,numerical.	10L
Aug -17	Distributio n Law	Nernst distribution Law, statement & thermodynamic proof of Nernst distribution Law, association & dissociation of solute in solvent, application of distribution Law,Numericals Assignment No-2 Internal -1	4L
Aug-17	Introductio n to Analytical Chemistry	Introduction,chemical analysis,application of chemical analysis,sampling ,types of analysis, common techniques, instrumental methods ,other techniques, factors affecting on choice of method	3L
Sept-17	Errors in Quantitativ	Introduction,Error,accuracy,precision,methods of expressing accuracy & precision,classification of	5L

	e Analysis	errors ,significant figures & computation,distribution of random errors ,mean & standard deviations ,reliability of results,Numericals	
Sept-17	Inorganic Qualitative Analysis	Basic principle ,common ion effect,solubility, solubility product,preparation of original solution ,classification of basic radicals in groups ,separation of basic radicals,removal of interfering anions (phosphate & borate),detection of acidic radicals Internal-2	8L
Oct-17	Analysis of Organic Compounds (Qualitative & Quantitative)	(A) Qualitative: Types of organic compounds , characteristic tests & classifications, reaction of different functional groups ,analysis of binary mixtures. (B) Quantitative: i)Analysis : estimation of C,H,(O) by combustion tube,detection of nitrogen,sulphur,halogen &phosphate by Lassigene's test. ii)Estimation of nitrogen by Duma's , Kjeldahl's method,estimation of halogen,Sulphur &phosphate by carious method. iii)Determination of empirical & molecular formula,Numerical problems.	8L
Oct-17		Question paper solving. Guidance to the student regarding examination.	03 L

**K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY**

S.Y.B.Sc. Syllabus completion Report- 2017-18

Name of Paper- Organic and Inorganic chemistry (Paper II)

No. of Lectures allotted per week-04 SEM – I

Name of teacher- Prof. Kolekar S.S., Prof. Mande S.N., Prof.D.M.Khangate

Month	Chapter	Topic	L
July 2017	Stereoisomerism	Introduction to optical isomerism: Chirality, optical activity and polarimetry, enantiomers, absolute configuration, R/S system nomenclature with wedge and Fischer representation of two chiral centres, erythro, threo, meso-diastereomers with R/S configuration. Stereoisomerism Baeyer's strain theory, heat of combustion, cycloalkanes, factors affecting the stability of conformation, Conformation of cyclohexane - equatorial and axial bonds, Monosubstituted cyclohexane stability with -CH ₃ and -C(CH ₃) ₃ substitutes. Structures of geometrical isomers of dimethylcyclohexane only	12
Aug 2017	Organic reaction Mechanism	Introduction, types of reagents—electrophile, nucleophile and free radical. Types of organic reactions: Addition, Elimination (elimination and Hofmann elimination), substitution (aliphatic electrophilic and nucleophilic, aromatic electrophilic) and rearrangement. Mechanism: (i) Aldol condensation (ii) Markovnikov and anti-Markovnikov addition reaction (iii) Saytzeff and Hoffmann elimination (iv) S _N and S _N reactions (v) Hofmann rearrangement Assignment No-1	12
Aug 2017	General Principles of Metallurgy	Introduction, occurrence of metals, ores and minerals, types of ores, operations involved in metallurgy, crushing, comminution, various methods of concentration such as hand picking, gravity separation, magnetic separation. Froth flotation, Calcinations, Roasting etc. Reduction, various methods of reduction such as smelting, Aluminothermic process and electrolytic reduction, Refining of metals, various	06

		methods of refining such as poling, liquation, electrolytic and vapour phase refining (Van Arkel Process). Aims: To study principles and process of metallurgy Internal-1	
Sept 2017	Metallurgy of Aluminium (Electrometallurgy):	Occurrence, Physiochemical principles, Extraction of Aluminium, Purification of bauxite by Baeyer's process, Electrolysis of alumina, application of aluminum and its alloys. Aims: To study metallurgy of Aluminium. Objectives: A student should be able - To know physico-chemical principles involved in electrometallurgy. To understand electrolysis of alumina and its refining. To explain the uses of Aluminum and its alloys. Assignment No-2	04
Sept 2017	Metallurgy of Iron and Steel (Pyrometallurgy)	Occurrence, concentration, calcination, smelting physio-chemical principles, reactions in the blast furnace, wrought iron, manufacture of steel by Bessemer and L.D. process, its composition and applications. Internal-2	08
Oct. 2017	Corrosion and Passivity	Definition of corrosion, Types of corrosion, Atmospheric, Immersed, Mechanism of electrochemical corrosion, Factors affecting corrosion - position of metal in E. C. S., purity effect of moisture, effect of oxygen, pH, physical state of metal, methods of protection of metal from corrosion- alloy formation, Passivity : Definition, Theories of passivity - (i) Oxide film theory (ii) Gaseous film theory (iii) Physical film theory, Valence theory, Catalytic theory, Allotropic theory, Electrochemical passivity.	06
Oct-17		Question paper solving. Guidance to the student regarding examination.	03

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune

Syllabus completion Report- 2017-18 Class: S. Y. B. Sc. (A) Sem.-II

Name of Paper: Physical & Analytical Chemistry (Paper I)

No. of Lectures allotted per week: 04

Name of Teacher: Dr. S.B. Suryawanshi Prof. Walunj Y.S. Prof. HaseM.K.

Month	Chapter	Topic Coverd	Lectures
Dec-17	Free Energy and Equilibrium	Physical chemistry – Introduction, Helmholtz free energy, variation of Helmholtz free energy with volume and temperature, Helmholtz free change energy for chemical reaction, Gibb's free energy, Variation of Gibb's free energy with pressure and temperature, Gibb's free energy change for chemical reaction, Free energy change for physical transitions, Free energy change for an ideal gas; standard free energy change, Gibb's-Helmholtz equation, Properties and significance of Gibb's free change, Van't Hoff reaction isotherm, thermodynamic equilibrium constants, Relation between K_p and K_c for gaseous reactions, variation of equilibrium constant with temperature, Criteria for chemical equilibrium, Physical equilibrium, Clapeyron equation, Clausius-Clapeyron equation, Application of Clausius-Clapeyron equation, numericals. Assignment No-1	12L
Dec-17	Solution of Liquids in Liquids	Types of solutions, Ideal solutions, Raoult's law, ideal and non ideal solutions, Henry's law, Application of Henry's law with example CS ₂ in acetone, problems based on Raoult's law and Henry's law, vapor pressure-composition diagram of ideal and non ideal solution, temperature composition diagram of miscible binary solutions, distillation from temperature-composition diagram, Azeotropes, Partially immiscible liquids.	12L

Jan-18	Introduction to volumetric analysis	<p>Analytical Chemistry</p> <p>Introduction, methods of expressing concentrations, primary & secondary standard solutions, Apparatus used & their calibration, burettes microburettes, volumetric pipettes, graduated pipettes, volumetric flask, methods of calibration, instrumental & non-instrumental analysis-principles & types</p> <p>Assignment No-2</p> <p>Internal -1</p>	6L
Feb-18	Non Instrumental volumetric analysis	<p>Indicators –theory of indicators, acid base indicators, mixed & universal indicators</p> <p>Acid –Base titrations: Strong acid- Strong base, Weak acid-Strong base, Weak acid-weak base titration, Displacement titrations, polybasic acid titration, (Discuss titration with respect to neutralization & equivalence point determination & limitations)</p> <p>Redox titrations: Principle of redox titration, detection of equivalence point using suitable indicators.</p> <p>Complexometric titrations: Principle, EDTA titrations, choice of indicators, Iodometry & Iodimetry; principle, detection of end point, difference between Iodometry & Iodimetry, Standardisation of sodium thiosulphate solution using potassium dichromate & iodine method, Applications-estimation of Cl_2</p> <p>Internal -1</p>	18 L
Mar-18		<p>Question paper solving.</p> <p>Guidance to the student regarding examination.</p>	03 L

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DEPARTMENT OF CHEMISTRY (S.Y.B.Sc.)

Syllabus completion Report- 2017-18 Sem– II

Name of Paper - Organic and Inorganic chemistry (Paper II)

No. of Lectures allotted per week-04

Name of teacher- Prof. S.S. Kolekar Prof. Mande S.N.Prof.D.M.Khangate.

Month	Chapter	Topic	L
Dec 2017	Reagents in Organic Synthesis	Catalytic hydrogenation including liquid phase hydrogenation, Birch reduction, NaBH_4 , LiAlH_4 , Sn/HCl , Oxidation reagents: KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$, Jones reagent, PCC, Per acids, OsO_4	08
DEC 2017	Chemistry of heterocyclic compounds with one hetero atom.	Definition and classification of heterocyclic compounds, nomenclature and aromatic character. Synthesis of Pyrrole, Furan, Thiophene, Pyridine and their reactions: Nitration, Sulphonation, Acylation and Catalytical reduction. Structure and synthesis of quinoline and Isoquinoline. Assignment No-1	06
DEC 2017 JAN 2018	Introduction of Bio-molecules	Carbohydrates: Definition, classification, reaction of monosaccharide (glucose)- oxidation, reduction, osazone and ester formation, isomerization, Killiani-Fischer synthesis and Ruff degradation, Configuration of D/L configuration of (+) Glucose, Fischer-Haworth and chair formulae, Brief account of disaccharides: Sucrose, cellobiose, maltose and lactose. Polysaccharides: Starch, cellulose and glycogen. Amino acids: Fischer projection, relative configuration, classification, structures and reactions of amino acids, Properties and chemical reactions with amino and carboxylic group. Proteins: Formation of Peptide linkage, α -helical conformation, β -pleated structure, primary, secondary, tertiary and quaternary structure of	10

		proteins.	
JAN 2018	Chemistry of d-block elements	Position of d-block in periodic table, electronic configuration, trends in properties of these elements w.r.t.(a) size of atoms & ions (b) reactivity (c) catalytic activity (d) oxidation state (e) complex formation ability (f) colour (g) magnetic properties (h) non-stoichiometry (i) density, melting & boiling points. Internal -1	06
FEB 2018	Organometallic Chemistry	Definition of Organometallic compounds and Organometallic chemistry, CO as a π -acid donor ligand, binary metal carbonyls, methods of synthesis; (a) Direct reaction (b) Reductive carbonylation (c) Photolysis and thermolysis. Molecular and electronic structures (18 electron rule) of metal carbonyls. Homogenous catalysis- Hydroformylation (Oxo Process) and Wacker Process. Assignment No-2	06
FEB. 2018	Acids, Bases and Solvents	Definition of acids and bases, Arrhenius theory, Lowry-Bronsted theory, Lewis concept, Lux-Flood theory, strength of acids and bases, trends in the strength of hydric acids and oxyacids, Properties of solvents, M.P-B.P range, dipole moment, dielectric constant, Lewis acid-base character and types of solvents. Internal-2	06
Mar. 2018	Chemical Toxicology	Toxic chemicals in the environment, Impact of toxic chemistry on enzymes.Biochemical effect of Arsenic, Cadmium, Lead, Mercury, Biological methylation.	06
Mar- 18		Question paper solving. Guidance to the student regarding examination.	03

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Syllabus completion Report- 2017-18

Class: S. Y. B. Sc. Chemistry, Term: Ist and IInd

Name of Paper: Chemistry practical No. of Lectures allotted per batch: 04

Sr.No.	Date	Name of Practicals
1.	July	To determine critical solution temperature of phenol water system
2.	Aug	Determination of solubility of benzoic acid at different temperature and to determine ΔH of dissociation process.
3.	Aug	To study neutralization of acid (HCl) base (NaOH) and CH_3COOH by NaOH and H_2SO_4 by NaOH.
4.	Aug	To determine the rate constant (or to study kinetic s) of acid catalyzed ester hydrolysis.
5.	Aug	To determine the rate constant of base catalyzed ester hydrolysis.
6.	Sep	Inorganic Qualitative Analysis Mixture No. 1
7.	Sep	Mixture No. 2
8.	Sep	Mixture No. 3
9.	Sep	Mixture No. 4
10.	Dec	Mixture No. 5
11.	Dec	Organic qualitative analysis of Binary Mixtures Mixture No. 1
12.	Dec	Mixture No. 2
13.	Dec	Mixture No. 3
14.	Jan	Mixture No. 4
15.	Jan	Organic Preparation Pthalic anhydride to pthalamide
16.	Jan	Glucose to osazone
17.	Jan	Estimation of sodium carbonate content of washing soda
18.	Feb	a) Preparation of standard 0.05 N oxalic acid solution and standardization of approx. 0.05N KMnO_4 solution. b) Determination of the strength of given H_2O_2 solution with standard 0.05 N KMnO_4 solution.
19.	Feb	Estimation of Aspirin from a given tablet and find errors in quantitative analysis
20.	Feb	Iodometric estimation of copper
21.	Feb	Internal Examination

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-III

Name of Paper: Physial Chemistry No. of Lectures allotted per week:04

Name of Teacher: Prof. Walunj Y.S.

Month	Name of Chapter	Topic Covered	Lect ures
July-2017	Chemical Kinetics	Recapitulation of Chemical Kinetics, Third order reaction, Derivation of integrated rate law for third order reaction with equal initial concentration, characteristics of third order reaction, examples of third order reaction, Methods to determine order of reaction using Integrated rate equation method, Graphical method, Half-life method, Differential method. Effect of temperature on reaction rate, Arrhenius equation, related numerical.	10 L
Aug-2017	Electrolytic Conductance	Recapitulation of Electrolytic conductance, Specific and equivalent conductance, Variation of equivalent conductance with concentration, Kohlrausch's law and its applications to determine a. Equivalent conductance at infinite dilution of a weak electrolyte, b. The ionic product of water, c. Solubility of sparingly soluble salts, Migration of ions and ionic mobilities, absolute velocity of ions, Transport number determination by Hittorf's method and moving boundary method, Relation between ionic mobility, ionic conductance and transport number, Ionic theory of conductance, Debye-Huckel –Onsager equation and its validity, Activity in solution, fugacity and activity coefficient of strong electrolyte. Assignment No-1 Internal -1	14L

Sept-2017	Investigations of Molecular structure.	Molar refraction, Electrical polarization of molecules, Permanent dipole moment, Determination of dipole moment, Molecular spectra - Rotational, vibrational and Raman spectra.	16L
	Phase Rule	Assignment No-2 Internal-2	04L
Oct-2017	Phase Rule	Definitions, Gibb's phase rule, one component system (moderate pressure only) for sulphur and water system, two component system for silver-lead and zinc-cadmium.	04L
Oct-18		Question paper solving. Guidance to the student regarding examination.	03 L

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-III

Name of Paper: Inorganic Chemistry No. of Lectures allotted per week:04

Name of Teacher : Prof. Dongare N.D.

Month	Name of Chapter	Topic Covered	No. of Lect.
July-17	Molecular Orbital Theory	Limitations of VBT, Need of MOT, Rules of LCAO combination, Different types of combination of Atomic orbital(AO's): S-S, S-P, P-P and d-d, Non-bonding combination orbitals(formation of NBMO), M.O. Energy level diagram, bond order, Energy (β) and magnetic behavior for molecules or ions: H_2 , H_2^+ , He_2^+ , Li_2 , Be_2 , B_2 , C_2 , N_2 , O_2 , O_2^+ , O_2^- , O_2^{2-} , F_2 , Ne_2 , M.O. energy level diagram, for heteronuclear diatomic molecule like CO, NO, HCl, HF, CO_2 , NO_2 .	12 L
	Introduction to coordination chemistry	Coordination no., charge on the complex ion, oxidation no. of Metal ion, first and second coordination sphere, Ligands, IUPAC nomenclature of coordination compounds, Different geometries of coordination compounds with C.N.= 4 to C.N.=10 and examples of each geometry.	02 L
	Werner's theory of coordination compounds	Assumptions, Werner's formulation of Coordination compounds, Physical and chemical test to support his formulation of ionizable and non-ionizable complexes, Stereoisomerism in complexes with C.N.4 and C.N. 6 to identify the correct geometrical arrangement. Assignment- 1	02 L

Aug-17	Isomerism in coordination complexes	Definition of isomerism in complexes, types of isomerism, structural & stereoisomerism & its types.	04 L
	Sedgwick theory	Concept of Sedgwick's model, EAN rule, Calculations of EAN value for different complexes and stability of complexes, Advantages and Drawbacks of Sedgwick's theory. • Surprise test.	02 L
	Paulings valence bond theory	Introduction to VBT, representation of tetrahedral, square planer, trigonalbipyramidal and octahedral complexes with examples, Inner and outer orbital complexes, Electro neutrality principle, Multiple bonding($d\pi$ - $p\pi$ and $d\pi$ - $d\pi$), Limitations of VBT. • Assingment-2 • Internal -1	08 L
Sep-17	Crystal field theory	Introduction & Need to CFT, shape & degeneracy of d-orbital, splitting of d-orbital, CFSE, calculation of CFSE, calculation of 10 Dq and factors affecting magnitude of 10Dq, d-d transitions and colour of the complexes, Jahn-Teller distortion theorem, Nephelauxatic effect. Problems on 10 dq value.	10 L
	Molecular orbital theory of coordination complex	Introduction, Assumptions, MO treatment to octahedral complexes with sigma bonding, Formation of MO's from metal orbitals, Charge transfer spectra, Formation of complex without pi-bonding. • Question paper checking • Internal 2	04 L

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-III

Name of Paper: Organic Chemistry No. of Lectures allotted per week:02

Name of Teacher : Prof.Y.S.Walunj, Dr. P.S Kulkarni .

Month	Name of Chapter	Topic Covered	Lectures
July-2017	Strength of organic acids and bases	<i>pka</i> , origin of acidity, influence of solvent, simple aliphatic saturated and unsaturated acids, substituted aliphatic acid, phenols, aromatic carboxylic acids, <i>pka</i> and temperature, <i>pkb</i> , aliphatic and aromatic bases, heterocyclic bases, acid base catalysis.	03 L
Aug-2017	Stereochemistry of disubstituted cyclohexane	Introduction, 1,1-alkyl disubstituted cyclohexane; Dimethyl cyclohexane 1,2; 1,3 and 1,4. Geometrical isomerism, Optical isomerism, stability of conformation, energy calculations <ul style="list-style-type: none"> • Assingment-1 Internal -1	06 L
Sept-2017	Nucleophilic substitution at aliphatic Carbon	Introduction, Nucleophile and leaving groups, Mechanism of nucleophilic substitution. The SN1 reaction: Kinetics, mechanism and stereochemistry (Racemization), stability of carbocation. The SN2 reaction: Kinetics, mechanism & stereochemistry (inversion). How to know whether a given reaction will follow SN1 or SN2 mechanism.Comparison of SN1 & SN2 reactions.SN _i reaction and mechanism.	08 L
Sep-2017	Reactions of unsaturated hydrocarbons and carbon oxygen double	a) Reaction of Carbon-Carbon double bond: Introduction, Mechanism of electrophilic addition to C=C bond. Orientation & reactivity, Rearrangements, (Support for formation of carbocation). Addition of	15 L

	bond	<p>hydrohalogen, Anti Markownikoff's addition (peroxide effect) with mechanism, Addition of halogens (dl pairs and meso isomers), hypohalous acids (HOX), Hydroxylation (Mechanism of cis and trans 1,2- diols). Hydroboration- Oxidation (Formation of alcohol), Hydrogenation (Formation of alkane), Ozonolysis (formation of aldehydes & ketones)</p> <p>b) Reactions of Carbon –Carbon triple bond: Addition of hydrogen, halogens, halogen acids, water and formation of metal acetylides and its application.</p> <p>c) Reactions of Carbon –Oxygen double bond: Introduction, Structure of carbonyl group, reactivity of carbonyl group, addition of Hydrogen cyanide, alcohols, thiols, water, ammonia derivatives, Cannizzaro and Reformaski reactions with mechanism.</p> <ul style="list-style-type: none"> • Assingment-2 Internal -2 	
July 17	Elimination Reactions	Introduction; 1,1; 1,2 elimination, E1, E2 and E1cB mechanism with evidences, Hoffmann and Saytzeff's elimination, reactivity effect of structure, attacking and leaving groups.	06 L
Aug 17	Aromatic Electrophilic and Nucleophilic substitution reactions	Introduction, arenium ion mechanism, Effect of substituent group (Orientation, o/p directing and meta directing groups). Classification of substituent groups (activating and deactivating groups) Mechanism of – Nitration, Sulfonation, Halogenation, Fridel-Crafts reactions, Diazo Coupling reactions, Ipso-substitution. Addition-elimination (S _N Ar), S _N 1, Elimination-addition (Benzyne) S _N R1 reactions, reactivity.	10 L
Oct-17		Question paper solving. Guidance to the student regarding examination.	03 L

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Sem.-III

Name of Paper: Analytical Chemistry

No. of Lectures allotted per week: 04 **Name of Teacher** : DR.S.B.Suruyawanshi.

Month	Name of Chapter	Topic Covered	Lectures
Jul-17	Gravimetric Analysis	Common ion effect and solubility product principles, Conditions for good precipitation, Factors affecting precipitation like acid, temperature, nature of solvent, Super saturation and precipitation formation, Precipitation from homogeneous solution and examples, Co-precipitation, postprecipitation and remedies for their minimization, Washing of precipitate and ignition of precipitate, Brief idea about method of filtration and drying of precipitate, Introduction to electrogravimetry: principle, applications, electrolytic separations of Cu and Ni, Numerical problems only on gravimetric analysis.	12 L
Jul-17	Thermal methods of analysis	Principle of thermal analysis, classification of thermal techniques, Principle, instrumentation and applications of TGA and DTA, factors affecting the thermal analysis, numerical problem.	06 L

Aug-17	Spectrophotometry	<p>Introduction, Electromagnetic spectrum, Interaction of electromagnetic radiations with the matter, Mathematical Statement and derivation of Lambert's Law and Beer's Law, Terminology involved in spectrophotometric analysis, Instrumentation of single beam colorimeter, Instrumentation of single and double beam spectrophotometer, Principle of additivity of absorbance and simultaneous determination, Spectrophotometric Titrations, Experimental Applications-Structure of organic compounds, Structure of complexes, Numerical Problems</p>	10 L
Aug-17	Polarography	<p>Introduction to voltammetric methods of analysis, Principles of polarographic analysis, Dropping Mercury Electrode, Instrument and working of polarographic apparatus, Ilkovic equation and quantitative analysis, Polarogram and chemical analysis, Analysis of mixture of cations, Factors affecting polarographic wave, Quantitative Applications, Numerical Problems</p> <p>Assingment-1 Internal -1</p>	08 L
Sep-17	Atomic Absorption Spectroscopy	<p>Introduction and theory of atomic absorption spectroscopy, Instrumentation of single beam atomic absorption Spectrophotometer, Measurement of absorbance of atomic species by AAS, Spectral and Chemical Interferences, Qualitative and Quantitative Applications of AAS. Numerical Problems.</p> <p>Assingment-2 Internal -2</p>	06 L

Oct-17	Flame Emission Spectroscopy	Introduction and theory of atomic emission spectroscopy, Instrumentation of single beam flame emission spectrophotometer, Measurement of emission of atomic species, Interferences in emission spectroscopy, Methods of analysis- calibration curve method, Standard addition method, and internal, standard method, Qualitative and Quantitative Applications of FES, Numerical Problems	06 L
Oct-17		Question paper solving. Guidance to the student regarding examination.	03 L

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DEPARTMENT OF CHEMISTRY
Syllabus completion Report- 2017-18

Name of Paper- Industrial chemistry (T.Y.B.Sc) Sem- III

No. of Lectures-04 Name of teacher: Prof .N.V.Gundal,Prof.S.G.Muthe

Month	Chapter	Topic	L
July 2017	Modern Approach to Chemical Industry	Introduction, basic requirements of chemical industries, chemical production, raw materials, unit process and unit operations, Quality control, quality assurance, process control, research and development, pollution control, human resource, safety measures, classification of chemical reactions, batch and continuous process, Conversion, selectivity and yield, copy right act, patent act, trade marks	08
Aug 2017	Agro chemicals	General introduction and scope of agrochemicals, meaning and examples of: Insecticides, Herbicides, Fungicides, Rodenticides, Pesticides, Plant growth regulators. Pesticide formulation, slow release pesticide formulations, storage stability test, and Industrial entomology. Advantages and disadvantages of agrochemicals. Structure,: DDT, BHC, Warfarin, Aldrin, Endosulphan, synthesis and application: DDT, BHC and Endosulphan. Biopesticides like Neem oil	08
Aug 2017	Manufacture of Basic Chemical	Ammonia: Physicochemical principles involved, Manufacture of ammonia by modified Haber-Bosch process, its uses. Sulphuric acid: Physicochemical principles involved, Manufacture of sulphuric acid by contact process, its uses, Nitric acid Physicochemical principles involved, Manufacture of nitric acid by Ostwald's process, its uses <ul style="list-style-type: none"> • Assingment-1 Internal -1 	08
Sept 2017	Petrochemicals	Introduction, occurrence, composition of petroleum, resources, processing of petroleum, calorific value of fuel, cracking, octane rating (octane	08

	and eco-friendly fuels	number).petroleum refineries, applications of petrochemicals, synthetic petroleum, lubricating oils & additives <i>Fuels and eco-friendly fuels:</i> liquid, gaseous fuel (LPG, CNG), fossil fuels, diesel, bio diesel, gasoline, aviation fuels. Use of solar energy for power generation	
Sept 2017	Food and Starch Industry	Definition and scope, nutritive aspects of food constituents, , food deterioration factors and their control; (b) Preservation and processing: Heat and cold preservation and processing, cold storage, food dehydration and concentration, various foods, their processing and preservation methods, fruits, beverages, cereals, grains, legumes and oil seeds; (c) Food additives: Enhancers, sugar substitutes, sweeteners, food colors Chemistry of starch, manufacturing of industrial starch and its applications, characteristics of some food starches, non-starch polysaccharides-cellulose-occurrence. Assingment-2 Internal -2	08
Oct. 2017	Cement and Glass industry	Introduction, Importance, composition of portland cement, raw materials, proportioning of raw materials, setting and Hardening of cement, reinforced concrete .Introduction, importance, physical and chemical properties of glass, chemical reaction, annealing of glass Special glasses: colored, safety, hard, borosilicate, optical, photosensitive, conducting, glass laminates	08
Oct-18		Question paper solving. Guidance to the student regarding examination.	03 L

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Name of Paper - Agricultural Chemistry (T.Y.B.Sc.) Sem III
No. of Lectures allotted per week-04 Name of teacher- Dr. P.S. Kulkarni

Month	Name of Chapter	Topic Covered	No. of Lect.
July 17	Soil Chemistry	Role of agriculture chemistry : Scope and importance of agricultural chemistry Agricultural chemistry and other science Definition of soil, Soil components- mineral component, organic matter or humus, soil atmosphere, soil water, soil microorganism Physical properties of soil- soil texture, soil structure, soil color, soil temp, soil density, porosity of soil. Surface soil and sub-soil Chemical properties of soil, soil reactions and solutions Factor controlling soil reaction, buffering capacity, importance of buffer action in agriculture, ion exchange	10 L
July-Aug17	Problematic Soil and Soil testing	Acid soil- formation of acid soil, effect of soil acidity of soil, reclamation of acidic soil 2.2 Alkali Soil- formation of alkali soil, reclamation of alkali soil 2.3 Classification of alkali soil- saline soil, saline alkali soil, non-saline alkali soil 2.4 Calcareous soils 2.5 Introduction to soil testing 2.6 Objectives of soil testing 2.7 Phases of soil testing- collection of soil sample, analysis in the laboratory and fertilizer applications	10 L
Aug-17	Quality of Irrigation Water	Sources of Water- Atmospheric water, Surface Water, Stored Water, Ground Water 3.2 Impurities in Water, Water quality, related problems in public health, environment and agriculture Analysis of irrigation Water (ppm, meq/lit.epm) 3.4 Dissolved constituents and their functions Major constituents- Ca, Mg, Na, K, Carbonate, bicarbonate, sulfate, Chloride and nitrate Minor constituents- B, Si, nitrite, Sulfide and fluoride 3.5 Water quality standard- total soluble salt (TSS), sodium adsorption	08 L

		ratio (SAR), Exchangeable sodium percentage (ESP), Residual sodium carbonate, salinity classes for irrigation water	
Aug-Sep 17	Plant Nutrients	Need of plant nutrients, forms of nutrients updates, nutrient absorption by plants 4.2 Classification of essential nutrients 4.2.1 Primary nutrients (N, P, K), its role and deficiency symptoms in plants 4.2.2 Secondary nutrients, (Ca, Mg, S), its role and deficiency symptoms in plants 4.2.3 Micronutrients, General functions of micronutrients (Zn, Fe, Mn, Cu, B, Mo, Cl) 4.3 Effect of environmental condition, nutrient uptake. Assingment-1 Internal -1	08 L
Sep 17	Fertilizers and Manures	Fertilizers 5.1 Introduction, Classification & application of fertilizers 5.2 Time and methods of fertilizers 5.3 Factors affecting efficiency of fertilizers 5.4 Vermicompost preparation, effect of vermicompost on soil fertility 5.5 Synthetic fertilizers definition, comparison of synthetic fertilizers with organic fertilizers , environmental effect of synthetic fertilizers Manures 5.6 Introduction, Definition and classification of manures 5.7 Effect of bulky organic manures on soil, farm yard manures (FYM), Factors affecting on FYM, method of preparation, losses during handling and storage 5.8 Biogas plant. Human waste, sewage and sludge, types of sludge, carbon nitrogen ratio, sewage irrigation and uses 5.9 Green manuring, types of green manuring, characteristics, advantages and disadvantages of green manuring 6.0 Biofertilizers: definition, classification, role & advantages	06 L
Sep 17	Protection of Plants	Pesticide Classification and mode of action 7.1 Insecticide- Definition, Classification, chemical properties, elemental composition, mode of action of synthetic and plant originated compounds organophosphates, malathion, parathion, carbamates 7.2 Fungicides- Definition, Classification, Chemical properties, mode of action of S & Cu fungicides 7.3 Herbicides- Definition,, Classification, composition,	06 L

		mode of action of Selective and non-selective herbicides Assingment-2 Internal -2	
Oct-17		Question paper solving. Guidance to the student regarding examination.	03 L

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Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-IV
Name of Paper: Physial Chemistry No. of Lectures allotted per Week: 04
Name of Teacher: Prof. Walunj Y.S.

Month	Name of Chapter	Topic Covered	Lect ures
Dec-2017	Electrochemical Cells	Reversible and irreversible cells, EMF and its measurements, Standard cells, cell reaction and EMF, Single electrode potential and its calculation, Calculation of cell EMF, Thermodynamics of cell EMF, Types of electrodes, Classification of electrochemical cells with and without transference, Applications of EMF measurement-i) Solubility product of sparingly soluble salt, ii) Determination of pH, iii) Potentiometric titration	10 L
Jan-2018	Nuclear Chemistry	The atom, nucleus and outer sphere, classification of nuclides, nuclear stability and binding energy. Discovery of radioactivity, types of radioactivity, general characteristics of radioactive decay and decay kinetics, Measurements radioactivity, gaseous ion collection method, proportional and G.M. counter. Applications of radioactivity- Radiochemical principles in the use of tracers, Typical applications of radioisotopes as a tracer i) Chemical investigations- reaction mechanism, ii) Structure determination- phosphorus pentachloride and thiosulphate ion iii) Age determination- by Carbon-14 dating and Uranium-Lead/ Thorium-Lead Ratio iv) Medical applications- Assess the volume of blood in patients body, Goiter Assingment-1 Internal -1	18L

Feb-2018	Crystal structure	Crystallization and fusion process, Crystallography, Crystal systems, - Properties of crystals, Crystal lattice and unit cell, - Crystal structure analysis by X ray - The Laue method and Braggs method, - X-ray analysis of NaCl crystal system, - Calculation of d and λ for a crystal system Assingment-2 Internal -2	10L 04L
Mar-2018	Quantum Chemistry	Concept of quantization, atomic spectra (no derivation), wave particle duality, uncertainty principle, wavefunction and its interpretation, well-behaved function, Hamiltonian (energy) operator, formulation of Schrodinger equation, particle in box (1D, 2D and 3D box) (no derivations), sketching of wavefunction and probability densities for 1D box, correspondence principle, degeneracy (lifting of degeneracy), applications to conjugated systems, harmonic oscillator, wavefunction and probability densities (no derivation), zero point energy and quantum tunneling.	04L
Mar-18		Question paper solving. Guidance to the student regarding examination.	03 L

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-IV

Name of Paper: Inorganic Chemistry No. of Lectures allotted per week: 04

Name of Teacher: Prof. Dongare N.D.

Month	Name of Chapter	Topic Covered	Lectures
Dec-17	Chemistry of f-block elements	Introduction of f-block elements I. Lanthanides - Position of periodic table ,name, E.C, oxidation state, occurrence, Lanthanide contraction, applications of lanthanides. II. Actinides -Name and electronic Configuration of actinides, general methods of preparation of transuranic elements, IUPAC nomenclature of super heavy elements, comparison bet ⁿ Lanthanide & actinides.	08L
Dec-17	Metals, Semiconductors and Super conductors	Metallic bonding, Band theory in metals with respect to Na along with n (E) & N(E) diagrams, Semiconductors & their types, N & P type semiconductors ZnO and NiO, Applications of superconductors.	10L
Mar - 18	Bioinorganic Chemistry	Introduction, Role of metals in bioinorganic chemistry, Metalloproteins, Bioinorganic Chemistry of Fe: Bioinorganic Chemistry of Co.	06L
Jan-18	Ionic Solids	Crystalline and amorphous solids, crystal structures simple cubic, BCC & FCC, Voids in crystal structure, Palings univalent and crystal radii, Born-Lande equation, Born Haber cycle and its applications, schottky & Franckel defect. • Assingment-1 Internal -1	06L

Jan 18	Homogeneous Catalysis	Definition, types of homogeneous catalysts, Catalytic Reactions such as: a. Wilkinson's Catalysis b. Zeigler Natta Catalysis c. Monsanto acetic acid synthesis.	06L
Feb-18	Heterogeneous Catalysis	Def ⁿ , types of heterogeneous catalysts, Catalytic Reactions: i. Synthesis of terephthalic acid from xylene using ZSM-5 Synthesis of benzoic acid from toluene using KMnO ₄ Hydrogenation of alkene to alkane using Raney Ni catalyst Synthesis of p-aminophenol from nitrobenzene using Pd/C catalyst Cyclization. Assingment-2 Internal -2	08L
Mar-18		Biodisel synthesis- transesterification reaction.Special guidance with respect to Examination.	04L
Mar-18		Question paper solving.Guidance to the student regarding examination.	03 L

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Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-IV
Name of Paper: Organic Chemistry No. of Lectures allotted per week:02
Name of Teacher : Prof.S.S.Kolekar ,Dr.P.S Kulkarni.

Month	Name of Chapter	Topic Covered	Lectures
Dec 17	Carbanions and their reactions	Introduction, Formation and stability of Carbanion. Reactions involving carbanions and their mechanisms: Aldol, Claisen, Dieckmann and Perkin condensations. Synthesis and Synthetic applications of Malonic ester, Acetoacetic ester and Wittig reagent.	06 L
Jan 18	Retrosynthetic analysis and applications	Introduction, Different terms used – Disconnection, Synthons, Synthetic equivalence, FGI, TM. One group disconnection, Retrosynthesis and Synthesis of target molecules: Acetophenone, Crotonaldehyde, Cyclohexene, Benzylbenzoate, and Benzyl diethyl malonate <ul style="list-style-type: none"> • Assingment-1 Internal -1 	05 L
Feb 18	Rearrangement reactions	Introduction, Mechanism of rearrangement reaction involving carbocation, nitrene and oxonium ion intermediate. Beckmann, Bayer-Villiger, Pinacol-pincolone, Curtis, Favorski, Claisen rearrangement	06 L

Dec 17	Spectroscopic methods in structure determination of Organic compounds	<p>Introduction, meaning of spectroscopy, nature of electromagnetic radiation, wave length, frequency, energy, amplitude, wave number, and their relationship, different units of measurement of wavelength frequency, different regions of electromagnetic radiations. Interaction of radiation with matter. Excitation of molecules with different energy levels, such as rotational, vibrational and electronic level. Types of spectroscopy and advantages of spectroscopic methods</p> <p>A) Ultra Violet Spectroscopy Introduction, nature of UV, Beer's law, absorption of UV radiation by organic molecule leading to different excitation. Terms used in UV Spectroscopy- Chromophore, Auxochrome, Bathochromic shift (Red shift), hypsochromic shift (Blue shift), hyperchromic and hypochromic effect. Effect of conjugation on position of UV band. Calculation of λ_{max} by Woodward and Fieser rules for dienes and enone systems, Colour and visible spectrum, Applications of UV Spectroscopy- Determination of structure, Determination of stereo chemistry (Cis and trans)</p> <p>B) Infra red Spectroscopy Introduction, Principle of IR Spectroscopy, Fundamental modes of vibrations ($3N-6$, $3N-5$) Types of vibrations (Stretching and bending), Hooke's law, Condition for absorption of IR radiations, vibration of diatomic molecules. Regions of IR Spectrum: fundamental group region, finger print region aromatic 29 region, Characteristic of IR absorption of functional groups: Alkanes, alkenes, alkynes, alcohol, ethers, alkyl-halides, carbonyl compounds ($-CHO$, $C=O$, $-COOR$, $-COOH$), amines, amides and Aromatic Compounds and their substitution</p>	24 L
Jan 18			
Feb 18			

		<p>Patterns. Factors affecting on IR absorption: Inductive effect, resonance effect, hydrogen bonding. Application of IR Spectroscopy in determination of structure, chemical reaction and hydrogen bonding.</p> <p>C) PMR Spectroscopy Introduction, Principles of PMR Spectroscopy, Magnetic and nonmagnetic nuclei, Precessional motion of nuclei without mathematical details, Nuclear resonance, chemical shift, shielding, & deshielding effect. Measurement of chemical shift, delta and Tau-scales. TMS as reference and its advantages, peak area, integration, spin-spin coupling, coupling constants, <i>J</i>-value (Only first order coupling be discussed)</p> <p>D) Problems based on U.V., I.R. and PMR</p> <ul style="list-style-type: none"> • Assingment-2 Internal -2 	
Mar 18	Natural Products	<p>Terpenoids: Introduction, Isolation, Classification. Citral- structure determination using chemical and spectral methods, Synthesis of Citral by Barbier and Bouveault Synthesis.</p> <p>Alkaloids: Introduction, extraction, Purification, Some examples of alkaloids and their natural resources. Ephedrine- structure determination using chemical methods. Synthesis of Ephedrin by Nagi.</p>	07 L
Mar-18		<p>Question paper solving. Guidance to the student regarding examination.</p>	03 L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18 Class: T. Y. B. Sc. Sem.-IV
Name of Paper: Analytical Chemistry No. of Lectures : 04
Name of Teacher DR.S.B.Suruyawanshi.

Month	Name of Chapter	Topic Covered	L
Dec-17	Chromatography	Introduction and classification of chromatographic methods, Principle of chromatographic analysis with match box model, Theoretical plates and column efficiency, Theory, Principle, technique and applications of-Column Chromatography, Ion exchange Chromatography, Thin layer Chromatography, Paper Chromatography, Numerical Problems	08 L
Dec-17	Gas Chromatography	Introduction, Theory, Principle, GSC and GLC, Separation mechanism involved in GSC and GLC, Instrumentation of Gas chromatography, Working of gas chromatography, Gas chromatogram and qualitative-quantitative analysis, Applications of gas chromatography	10 L
Jan-18	Nephelometry and Turbidimetry Internal Examination - 01	Introduction, Principles and instrumentation of Nephelometric and Turbidimetric analysis, Difference between Nephelometric and Turbidimetric measurements, Choice between Nephelometry and Turbidimetry, Factors affecting Nephelometric and Turbidimetric measurements, Quantitative Applications, Numerical Problems	09L

Jan-18	High Performance Liquid Chromatography	<p>Introduction, Need of liquid chromatography, Separation mechanism involved in adsorption and partition HPLC, Instrumentation and working of HPLC, Applications of HPLC, Introduction to supercritical fluid chromatography</p> <ul style="list-style-type: none"> • Assingment-1 Internal -1 	09L
Feb-18	Electrophoresis	<p>Introduction, Principle and theory of electrophoresis, Different types of electrophoresis techniques, Moving Boundary Electrophoresis, Zone electrophoresis- Paper, Cellulose acetate and Gel electrophoresis, Applications of electrophoresis</p> <ul style="list-style-type: none"> • Assingment-2 Internal -2 	06L
Mar-18	Solvent Extraction	<p>Introduction, Principle of solvent extraction, Distribution coefficient, distribution ratio, relationbetween Distribution coefficient and distribution ratio, factors affecting solvent extraction,percentage extracted, solvent extractionmethod, separation factor, batch extraction, counter currentextraction, application of solvent extraction, numerical problems.</p>	08 L
Mar-18		<p>Question paper solving. Guidance to the student regarding examination.</p>	03 L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY
Syllabus completion Report- 2017-18
Name of Paper - Industrial chemistry (T.Y.B.Sc.) Sem IV
No. of Lectures -04 Name of teacher- Prof.S.N.Mande.

Month	Chapter	Topic	No Of Lect
Dec 2017	Polymer chemistry	Classification of Polymers: Organic and Inorganic polymers Basic concepts, nomenclature, degree of polymerization, classification of polymerization reactions, thermodynamic and transport properties of polymer, <i>Commercial polymers and their importance:</i> (a) Nylon, polyesters (terylene and dacron), rubber, vulcanization of rubber, synthetic rubber, Bun 2-N rubber, copolymers of butadiene, PVC, acrylic, teflon, polyethylene and acrylonitrile; (b) Silicone polymers: silicone oils, rubber, grease and resin; (c) Resins: Phenol-formaldehyde resins, urea-formaldehyde resins, epoxy resins, melamine-formaldehyde resins;	10 L
DEC 2017	Sugar and Fermentation in Industry	Sugar:-Occurrence, Manufacturing of refine cane sugar from sugar cane, general idea of carbonation and sulphitation processes and their comparison, by-product and their use. Fermentation-Introduction, importance, Basic requirement of fermentation process, Manufacture of industrial alcohol from molasses, fruits, food grains, & ethylene, Manufacturing of wine, beer, whisky, rum ; importance Power alcohol	08L
JAN 2018	Soap, detergents and Cosmetics	Chemistry of soap, raw material, chemical reaction, types of soap. Meaning of the terms detergent and surfactants, emulsion and emulsifying agents, wetting and non-wetting, hydrophobic and hydrophilic nature, amphipathic structures, types of surfactants, raw materials for detergents, washing action of soaps and detergents, detergent builders, additives.	08 L

		<p>Raw materials: emulsifiers (natural, synthetic and finely dispersed solids), lipid components (oils, waxes, fats), humectants, colours (dyes and pigments), preservatives and antioxidants.</p> <p>Cosmetics for skin: Types and problems of skin, key ingredients of skin cleansing, toners, moisturizers, nourishing, protective sunscreen, talcum powder and bleaching products. (c) Hair care: classification, ingredients, special additives for conditioning and scalp health, hair colourants (temporary, semi-permanent and gradual colourants), the plant materials (herbs) used in hair cosmetics</p>	
JAN 2018	Dyes and paints	<p><i>Dyes</i>: Introduction, classification of dyes: Structures and applications, nitro, nitroso, azo, heterocyclic, phthalenes, xanthenes, rhodamines, thiazine, cyanine, anthraquinone, indigoids, thioindigoids, phthalocyanines, wet dyes.</p> <p><i>Paints</i>: Introduction of paints, ingredients and classification, new technologies; properties of coatings; solvents, plasticizers, dyes and bioactive additives;</p> <p><i>Pigments</i>: Introduction, classification and general physical properties</p> <ul style="list-style-type: none"> • Assingment-1 Internal -1 	08 L
FEB 2018	Chemistry of pharmaceutical industries	<p><i>General aspects of drug action</i>: Introduction, classification, nomenclature, structure-activity relationship, action of drugs, factors affecting drug action, metabolism of drugs, chemical structures, methods of production and pharmacological activity. Meaning of the terms: Prescriptions, doses, analgesic, antipyretic, diuretic, anesthetics, antibiotics, anti-inflammatory, anti-viral, tranquilizer, antiulcer, antialergic and bronchodilators, cardiovascular, cold preparations, anti-hypertensive, cough preparation, anti-neoplastic, sedative and hypnotics, steroidal, contraceptive, histamine and antihistamine.</p> <p>Synthesis and uses: Paracetamol, Aspirin, Sulphanilamide.</p> <ul style="list-style-type: none"> • Assingment-2 Internal -2 	08 L

Mar 18	Pollution prevention and waste management	Introduction, importance of waste management, concept of atom economy, Terms involved in waste minimization: source reduction, recycling, product changes, source control, use and reuse, reclamation, assessment procedures, types of wastes, treatment and disposal of industrial waste. Treatment of wastes or effluents with organic impurities	06 L
Mar-18		Question paper solving. Guidance to the student regarding examination.	03 L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY

Syllabus completion Report- 2017-18

Name of Paper - Dairy Chemistry (T.Y.B.Sc.) Sem IV

No. of Lectures allotted per week-04 Name of teacher- Dr. P.S. Kulkarni

Month	Name of Chapter	Topic Covered	No. of Lect.
Dec17	Market Milk	Introduction, Definition, constituents of milk of different species such as cow, buffalo, goat, etc., Chemical composition of milk of Indian breed and foreign breeds of cow, factor affecting composition of milk, characteristics of milk of different mammals, physicochemical properties of milk, acidity, pH, density, specific gravity, color and flavor of milk, food and nutritive value of milk. Microbiology of milk, growth of microorganism, stages of growth, product of microbial growth, destruction of microorganisms growth.	10 L
Dec17	Common Dairy Processes	Cream separation- Basic principles, gravity creaming water dilution and centrifugal creaming method, construction of centrifugal separator, factors affecting percentage of fat, speed of machine, temp. of milk, rate of inflow amount of flushing water formation of separator slime Pasteurization of milk, flow sheet diagram, process receiving milk, preheating filtration, clarification, cooling and storage raw milk, standardization, pasteurization, homogenization, packing and storage, uses of milk.	06 L
Dec-17 Jan18	Special Milks	1. Sterilized milk- Definition, method of manufacture in detail, Advantages and disadvantages. 2. Homogenized milk,- Definition, merits and demerits factor influencing homogenization, Process of manufacture. 3. Soft curd milk- Definition, characteristics, method of preparation of soft curd milk. 4. Flavored milk- Definition, types, method of manufacture flow sheet diagram. 5. Vitaminised / irradiated milk- - Definition, method of manufacture.	08 L

Jan 18	Milk proteins, Carbohydrates and Vitamins	<p>Milk proteins- importance of proteins found in the milk-casein, albumin and globulin, composition, nomenclature, properties and uses. 2. Carbohydrates- importance of lactose, classification, properties, nutritive value of lactose use of lactose. 3. Vitamins- importance, definition, 74 properties nutritive value of vitamins, Vit-A, Vit-B, B2, B6, B12, Vit-C (Ascorbic acid) & Vitamin-D. 4. Food and nutritive value of milk, milk & public health</p> <ul style="list-style-type: none"> • Assingment- Internal -1 	08 L
Jan- Feb 18	Preservatives & Adulterants in Milk	<p>Preservation of milk- Introduction, Common preservatives are used. 2. Adulterants Introduction, Modes of Adulteration and their detection such as skimming, addition of separated milk, skim milk, Water, Starch and cane sugar.</p>	06 L
Feb 18	Milk Products	<p>Cream, Butter, Cheese and Ice-Cream. 1. Cream- Definition, Classification, Composition, Food & Nutritive value, Physicochemical properties, Manufacture and uses of cream. 2. Butter- Definition, Classification, Composition, Food & nutritive value, Physicochemical properties, Manufacture and uses of Butter selection of milk/cream. Preheating of milk, Separating of milk, neutralization of cream, Pasteurization of cream, Cooking & ageing, ripening of cream, salting of butter, washing of butter, packaging & Storage, use of butter. 3. Cheese- Definition, Classification, Food & nutritive value, properties, Manufacture and uses of cheese. 4. Ice-cream- Definition, Classification, Composition, Food & Nutritive value, Manufacture, packing, hardening & Storage, uses of Ice-cream. Assingment-2</p>	08 L
Feb- March 18	Dried Milk Products	<p>Introduction, butter milk powder, whey powder, cream powder, infant milk powder, Shrikand powder, Ice-cream mix powder, cheese powder.</p> <p>Internal -2</p>	4 L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18
Class: T. Y. B. Sc. Chemistry, Sem.: Ist and IInd
Name of Paper: Physical Chemistry Practicals
No. of Lectures allotted per batch: 04
Batches : A,B,C,D,E,F,G

S.N.	Date	Name of Practicals
1.	July	To study the effect of concentration of the reactants on the rate of hydrolysis of an ester.
2.	Aug	To compare the relative strength of HCl and H ₂ SO ₄ by studying the kinetics of hydrolysis of an ester
3.	Aug	To determine the energy of activation of the reaction between potassium iodide and potassium persulphate
4.	Aug	To determine the order of reaction between K ₂ S ₂ O ₈ and KI by half-life method.
5.	Aug	To determine the molecular weight of a high polymer by using solutions of different concentrations
6.	Sep	To investigate the adsorption of oxalic acid /acetic acid by activated charcoal and test the validity of Freundlich / Langmuir isotherm
7.	Sep	To study the effect of addition of salt on critical solution temperature of phenol water System
8.	Sep	To determine the specific refractivity's of the given liquids A and B and their mixture and hence determine the percentage composition their mixture C.
9.	Sep	To determine the molecular refractivity of the given liquids A, B, C and D.
10.	Dec	Determination of λ_{\max} and concentration of unknown solution of KMnO ₄ in 2 N H ₂ SO ₄
11.	Dec	Determination of λ_{\max} and concentration of unknown solution of CuSO ₄ .
12.	Dec	To prepare standard 0.2 M Na ₂ HPO ₄ and 0.1 M Citric acid solution, hence prepare four different buffer solutions using them. Determine the pka value of these and unknown solutions.
13.	Dec	To determine the concentrations of strong acid and weak acid present in the mixture by titrating with strong base.

14.	Jan	To determine the degree of hydrolysis of aniline hydrochloride
15.	Jan	To determine pka value of given weak acid by pH-metric titration with strong base.
16.	Jan	To determine pH of various mixtures of sodium acetate and acetic acid in aqueous solution and hence to find the dissociation of acetic acid.
17.	Jan	To determine the cell constant of the given cell using 0.01 M KCl solution and hence determine dissociation constant of a given monobasic weak acid.
18.	Feb	To estimate the amount of lead present in given solution of lead nitrate by conductometric titration with sodium sulphate.
19.	Feb	Journal Submission
20.	Feb	Internal Examination

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18

Class: T. Y. B. Sc. Chemistry Sem.: Ist and IInd
Name of Paper: Inorganic Chemistry Practicals
No. of Lectures allotted per batch: 04

Batches : A,B,C,D,E,F,G

Sl. No.	Date	Name of Practicals
1.	July	Qualitative Analysis Mixture No. 1
2.	Aug	Mixture No. 2
3.	Aug	Mixture No. 3
4.	Aug	Mixture No. 4
5.	Aug	Mixture No. 5
6.	Sep	Mixture No. 6
7.	Sep	Volumetric Estimations Mn by volhard method
8.	Sep	Analysis of Alkali mixture by Volumetric method
9.	Sep	Estimation of % purity of given sample of Sodium Chloride
10.	Dec	Inorganic preparations Preparation of $[\text{Ni}(\text{NH}_3)_6]^{2+}$
11.	Dec	Preparation of $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$ and estimation of Copper Idometrically
12.	Dec	Preparation of Crystals of Potash alum and estimation of aluminum volumetrically.
13.	Dec	Gravimetric estimations Fe as Fe_2O_3
14.	Jan	Nickel as Ni – DMG
15.	Jan	Gravimetric estimation of Ba as BaSO_4 using homogeneous precipitation method
16.	Jan	Colorimetric Estimations Iron
17.	Jan	Cobalt
18.	Feb	Separation of binary mixture of cations by Column Chromatography
19.	Feb	Separation of binary mixture of cations by Column Chromatography
20.	Feb	Internal Examination


K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Syllabus completion Report- 2017-18
Class: T. Y. B. Sc. Chemistry Sem.: Ist and IInd
Name of Paper: Organic Chemistry Practicals
No. of Lectures allotted per batch: 04
Batches : A,B,C,D,E,F,G

Sr. No.	Date	Name of Practicals
1.	July	Separation of Binary Mixtures and Qualitative Analysis Mixture No. 1
2.	Aug	Mixture No. 2
3.	Aug	Mixture No. 3
4.	Aug	Mixture No. 4
5.	Aug	Mixture No. 5
6.	Sep	Mixture No. 6
7.	Sep	Mixture No. 7
8.	Sep	Mixture No. 8
9.	Dec	Organic Estimations i. Estimation of acetamide.
10.	Dec	ii. Estimation of Ethyl benzoate.
11.	Dec	iii. Determination of Molecular weight of Monobasic acids by Volumetric Methods.
12.	Dec	iv. Determination of Molecular weight of Dibasic acids by Volumetric Methods
13.	Jan	Organic Preparations Benzoquinone from Hydroquinone (Oxidation by $\text{KBrO}_3/\text{K}_2\text{CrO}_3$)
14.	Jan	P-nitroacetanilide from Acetanilide (Nitration)
15.	Jan	P-Iodonitrobenzene from P-Nitroaniline (Sandmeyer Reaction)
16.	Feb	Benzoic acid from Ethyl benzoate (Ester hydrolysis)
17.	Feb	Internal Examination


Dr.S.B.Suryawanshi
Head of the Department

2016-17

- 6) M.Com (P.G.) - 1st & 2nd Semesters Examination Results
P.G. 1st & 2nd Semesters Examination Results are available
at the M.Com 1st & 2nd Semesters Examination Results
Page on the website. The results are available for
download. The results are available for
download.


Dr. (P.G.) 1st & 2nd
Vice-Principal

VICE-PRINCIPAL,
Commerce Faculty,
Rajwade Sanshodhan Mandal,
Rajwade Sanshodhan Mandal,
Rajwade Sanshodhan Mandal, Rajwade Sanshodhan Mandal


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Principal
Rajwade Sanshodhan Mandal,
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Rajwade Sanshodhan Mandal, Rajwade Sanshodhan Mandal

उत्तराखण्ड विद्यापीठ

दिनांक 08/06/2024
पृष्ठ 13/13

उत्तराखण्ड विद्यापीठ की ओर से
सन् 2024-25 का शैक्षणिक सत्र का
दिनांक 08/06/2024 को ही सत्र का
आरम्भ उत्तराखण्ड विद्यापीठ के
विद्यार्थी सत्र का आरम्भ के विनम्र अथवा
करणात्मक आरम्भ
सत्र का आरम्भ महिला सत्र का
निर्देशन करण लकी ओर से विद्यापीठ
करणात्मक आरम्भ विद्यापीठ सत्र का
आरम्भ लकी करणात्मक आरम्भ

1) Prof. G. L. Choudhary
2) Dr. M. N. Choudhary

3) Dr. Sangeeta J.S.
4) Dr. Jagdeep S.M.

5) Mrs. Malchikar (Lab Asst.)

HEAD
Department Of Botany
Mahatma Rajguru Mahavidyalaya
Rajpurmaharajpur-618 505

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Modern Operating Environment and MS-Office

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction To Computers Computer Characteristics, Concept of Hardware, Software , Evolution of computer and Generations, Types of computer – Analog & Digital computers, Hybrid computers, General purpose & Special Purpose Computer, Limitations of Computer Applications of Computer in Various fields	06	06
		UNIT 2 Structure and Working Of Computer Functional Block diagram of computer. CPU, ALU, Memory Unit, Bus structure of Digital Computer - Address, data and control bus.	04	04
2	August	UNIT 3 Input/Output Devices Input device – Keyboard, Mouse, Scanner, MICR, OMR. Output devices – VDU, Printers – Dot Matrix, Daisy- wheel, Inkjet, Laser, Line printers and Plotters.	05	05

		UNIT 4 Computer Memory Memory Concept , Memory cell, memory organization, Semiconductor memory- RAM, ROM, PROM, EPROM, Secondary Storage devices - Magnetic tape, Magnetic Disk (floppy disk & Hard disk.), Compact Disk.	06	07
3	August	Computer Language and Software :Algorithm, flowcharts, Machine	05	05
		language, Assembly language, High Level language, Assembler, Compiler, Interpreter. Characteristics of good Language. Software - System and application software.		
4	August	Operating System :Operating system, Evolution of operating system. Function of operating system. Types of operating systems. Detailed study of Windows Operating System. Introduction and features of LINUX OS.	06	07
5	And	Networking : Concept, Basic elements of a Communication System, Data transmission media, Topologies, LAN, MAN, WAN, Internet	03	03
6	September	MS-OFFICE : Introduction to Ms-office, Components and features. MS-Word – Creating letter, table , fonts , page layout document formatting spell check, print preview, template, colour, mail merge, auto text, inserting picture , word art. MS-EXCEL – Introduction to Excel , Sorting , Queries, Graphs , Scientific functions. Power Point :- Introduction to Power Point Creation of Slides , Inserting pictures , Preparing slide show with animation. MS-ACCESS – CreationManipulation of Files.	12	11

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Principles of Programming and Algorithms

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction Concept: problem solving, algorithm Program development cycle Characteristics of an algorithm Time complexity: Big-Oh notation Flowcharts Simple Examples: Algorithms and flowcharts	05	06
2	July August	UNIT 2 Simple Arithmetic Problems Addition / Multiplication of integers Determining if a number is +ve / -ve / even / odd Maximum of 2 numbers, 3 numbers Sum of first n numbers, given n numbers Integer division, Digit reversing, Table generation for n, ab Factorial, sine series, cosine series, nCr , Pascal Triangle Prime number, Factors of a number Other problems such as Perfect number, GCD of 2 numbers etc (Write algorithms and draw flowcharts)	13	12
3		UNIT 3 Recursion Concept Multiplication Factorial	08	07

		Ackerman function Fibonacci series Permutation Generation		
4	August September	UNIT 4 Algorithms using arrays Maximum and minimum of array, reversing elements of an array Mean and Median of n numbers Row major and Column major form of array representation Matrices: Addition, Multiplication, Transpose, Symmetry, upper/lower triangular	08	07
5		UNIT 5 Sorting and Searching Insertion sort Bubble sort Selection sort Quick sort (Recursive) Merge sort Radix Sort Bucket Sort Counting Sort Sequential and Binary search (Performance Analysis for space requirement and speed using Big-Oh notation is essential)	13	13

Syllabus Completion Report

Academic Year 2017-2018

Class : FYBCA

Semester : SEM I

Subject : Principles of Management

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Nature Of Management Meaning, Definition, Nature, Importance & Functions Management an Art, Science & Profession-Management as social System Concept of Management-Administration-Organization-Universality of management	08	07
2		UNIT 2 Evolution Of Management Thoughts Contribution of F.W.Taylor, Henri Fayol, Elton Mayo	08	07
3		UNIT 3 Functions Of Management Part -I Planning –Meaning –Need & Importance, types levels –advantages & limitations; Forecasting- Need & Techniques; Decision making – Types - Process of rational decision making & techniques of decision making.	08	07

		Organizing – Elements of organizing & process Types of organizations, Delegation of authority – Need, difficulties in delegation – Decentralization. Staffing – Meaning & importance		
4	August	UNIT 4 Functions Of Management Part -II Direction - Nature – Principles Motivation - Importance – Theories Leadership – Meaning - qualities of effective Leadership & functions of leader Co-ordination - Need – Importance Controlling – Need, nature, Importance, Process & techniques	08	08
5	September	UNIT 5 Strategic Management Definition, Classes of Decisions Levels of Decisions Strategy Role of Strategic Management and its benefits Strategic Management in India	08	09
		UNIT 6 Recent Trends In Management Management of change Disaster Management Total Quality Management Stress Management Social Responsibility of management	08	

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Data Structure using 'C'

Subject Teacher: Prof. V. R. Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July August	UNIT 1 Introduction to data structure Pointers and dynamic memory allocation Algorithm-Definition and characteristics Algorithm Analysis -Space Complexity -Time Complexity -Asymptotic Notation Introduction to Data structure Types of Data structure Abstract Data Types (ADT) Introduction to Arrays and Structure Types of array and Representation of array Polynomial - Polynomial Representation - Evaluation of Polynomial - Addition of Polynomial Self Referential Structure	09	08
2		UNIT 2 Searching and Sorting Techniques Linear Search Binary Search(Recursive , Non-Recursive) Bubble Sort Insertion Sort Selection Sort	09	08

		Quick Sort Heap Sort (No Implementation) Merge Sort Analysis of all Sorting Techniques		
3	August	UNIT 3 Linked List Introduction Static & Dynamic Representation Types of linked List - Singly Linked list(All type of operation) - Doubly Linked list (Create , Display) - Circularly Singly Linked list (Create, Display) Circularly Doubly Linked list (Create, Display)	10	11
4	September	UNIT 4 Stack and Queue Introduction stack Static and Dynamic Representation Primitive Operations on stack Application of Stack Evaluation of postfix and prefix expression Conversion of expressions- Infix to prefix & Infix to postfix Introduction queue Static and Dynamic Representation Primitive Operations on Queue Application of Queue Type of Queue Circular Queue De Queue Priority Queue	09	08
5		UNIT 5 Trees Introduction & Definitions Terminology Static and Dynamic Representation Types of tree Operations on Binary Tree & Binary Search Tree Tree Traversal	07	08

		Inorder, Preorder, Postorder (Recursive & Iterative) .AVL Tree		
6	October	UNIT 6 Graphs Representation -Adjacency Matrix -List In degree , out degree of graph Graph operation DFS , BFS Spanning Tree	04	03

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Relational Database Management System

Subject Teacher: Prof. V. A. Sandbhor.

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July August	UNIT 1 Introduction To RDBMS Introduction to popular RDBMS product and their features Difference Between DBMS and RDBMS Relationship among application programs and RDBMS	02	02
2		UNIT 2 PLSQL Overview of PLSQL Data Types PLSQL Block % type, % rowtype Operators, Functions, comparison, numeric, character, date Control Statement Exception Handling Predefined User defined exceptions Functions , Procedures Cursor Definition Types of cursor- implicit, explicit (attributes) Parameterized cursor Trigger Package	20	21

3	August	UNIT 3 Transaction Management Transaction Concept Transaction Properties Transaction States Concurrent Execution Serializability Conflict Serializability View Serializability Recoverability Recoverable Schedule Cascadless Schedule	10	11
4	September	UNIT 4 Concurrency Control Lock Based Protocol Locks Granting of Locks Two Phase Locking Protocol Timestamp Based Protocol Timestamp Timestamp ordering protocol Thomas's Write Rule Validation Based Protocol Deadlock Handling Deadlock Prevention Deadlock Detection Deadlock Recovery	08	09
5		UNIT 5 Recovery System Failure Classification Transaction Failure System Crash Disk Failure Storage Structures Storage Types Data Access Recovery & Atomicity Log based Recovery Deferred Database Modification Immediate Database Modification Checkpoints Recovery with Concurrent Transaction Transaction Rollback Restart RRemote Backup System	08	09

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Introduction to Operating System

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction to Operating System What is operating system Computer system architecture Services provided by OS Types of OS	02	03
		UNIT 2 System Structure User operating system Interface System Calls Process or job control Device Management File Management System Program Operating System Structure	02	03
		UNIT 3 Process Management What is Process Process State Process Control Block Context Switch Operation on Process Process Creation Process Termination	03	04
		UNIT 4 CPU Scheduling		

	July and August	What is scheduling Scheduling Concepts CPU- I/O Burst Cycle CPU Scheduler Preemptive and Non-preemptive scheduling Dispatcher Scheduling criteria (Terminologies used in scheduling) Scheduling Algorithms FCFS SJF (Preemptive & non-preemptive) Priority Scheduling (Preemptive & Nonpreemptive) Round Robin Scheduling Multilevel Queues Multilevel Feedback queues	08	09
2	August	UNIT 5 Process Synchronization Introduction Critical section problem Semaphores Concept Implementation Deadlock & Starvation Binary Semaphores Critical Sections Classical Problems of synchronization Bounded buffer problem Readers & writers problem Dining Philosophers problem	06	07
		UNIT 6 Deadlock Introduction Deadlock Characterization Necessary Condition Resource allocation graph Deadlock Prevention Deadlock Avoidance Safe State Resource allocation graph algorithm	07	08

		Bankers algorithm Deadlock Detection Recovery from deadlock Process Termination Resource Preemption		
	September	UNIT 7 Memory Management Introduction to memory management Address Binding Dynamic Loading Dynamic Linking Overlays Logical vs. physical addresses Swapping Contiguous memory allocation Single Partition Allocation Multiple Partition Allocation External and Internal Fragmentation Paging Segmentation Segmentation with paging Virtual memory Demand paging Page replacement algorithms FIFO MRU LRU LRU approximation using reference bit MFU LFU Second Chance algorithm Optimal replacement	08	09
		UNIT 8 File System Introduction & File concepts (file attributes, Operations on files) Access methods Sequential access Direct access File structure	07	08

	September	Allocation methods Contiguous allocation Linked Allocation Indexed Allocation 8.4 Free Space Management Bit Vector Linked List Grouping Counting		
	September And October	UNIT 9 I/O System Introduction I/O Hardware Application of I/O Interface Kernel I/O Subsystem Disk Scheduling FCFS Shortest Seek time first SCAN C- SCAN C- Look	05	06

Syllabus Completion Report

Academic Year 2017-2018

Class : SYBCA

Semester : SEM III

Subject : Software Engineering

Subject Teacher: Prof. V.V.Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction to System Concepts Definition , Elements of System Characteristics of System Types of System System Concepts	02	03
		UNIT 2 Requirement Analysis Definition of System Analysis Requirement Anticipation Knowledge and Qualities of System Analyst Role of a System Analyst Feasibility Study And It's Types Fact Gathering Techniques SRS(System Requirement Specification)	06	07
		UNIT 3 Introduction to Software Engineering	04	05

		Definition Need for software Engineering Software Characteristics Software Qualities (McCall's Quality Factors)		
2	August	UNIT 4 Software Development methodologies SDLC (System Development Life Cycle) Waterfall Model Spiral Model Prototyping Model RAD MODEL	06	07
		UNIT 5 Analysis and Design Tools Entity-Relationship Diagrams Decision Tree and Decision Table Data Flow Diagrams (DFD) Data Dictionary Elements of DD Advantage of DD Pseudo code Input And Output Design CASE STUDIES (Based on Above Topic)	10	11
3	September	UNIT 6 Structured System Design Modules Concepts and Types of Modules Structured Chart Qualities of Good Design Coupling, Types of Coupling Cohesion, Types of Cohesion	06	07
		UNIT 7 Software Testing Definition, Test characteristics Types of testing Black-Box Testing White-Box Testin UniVerification	06	07

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject :Java Programming

Subject Teacher: Prof. P.D.Tanpure

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction to Java Features of java JDK Environment & tools like(java, javac, appletviewer, javadoc, jdb) OOps Concepts Class, Abstraction , Encapsulation, Inheritance, Polymorphism Difference between C++ and JAVA Structure of java program Data types ,Variables ,Operators , Keywords ,Naming Convention Decision Making (if, switch), Looping(for, while) Type Casting Array Creating an array Types of Array One Dimensional arrays Two Dimensional array String - Arrays , Methods. - StringBuffer class	08	09
2	July and	UNIT 2 Classes and Objects Creating Classes and objects Memory allocation for objects Constructor Implementation of Inheritance Simple, Multilevel, Interfaces	10	11

	August	Abstract classes and methods Implementation of Polymorphism Method Overloading, Method Overriding Nested and Inner classes. Modifiers and Access Control Packages Packages Concept Creating user defined packages Java Built in packages java.lang->math java.util->Random, Date, Hashtable Wrapper classes		
3	August	UNIT 3 Collection Collection Framework. Interfaces Collection List Set SortedSet Enumeration Iterator ListIterator . Classes - LinkedList - ArrayList - Vector - HashSet - TreeSet - Hashtable Working with maps Map interface Map classes - HashMap	06	07
4	September	UNIT 4 File and Exception Handling Exception Exception types Using try catch and multiple catch Nested try, throw , throws and finally Creating user defined Exceptions File Handling Stream ByteStream Classes	08	09

		CharacterStream Classes File IO basics File operations Creating file Reading file(character, byte) Writing file (character, byte)		
5	September And October	UNIT 5 Applet, AWT and Swing Programming Introduction Types applet Applet Life cycle - Creating applet - Applet tag Applet Classes - Color - Graphics - Font AWT Components and container used in AWT Layout managers Listeners and Adapter classes Event Delegation model Swing Introduction to Swing Component and Container Classes	12	13

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject : Web Technologie

Subject Teacher: Prof. V. R. Pande

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Web Essentials Clients- Servers and Communication Internet-Basic ,Internet Protocols(HTTP,FTP,IP) World Wide Web(WWW) HTTP request message, HTTP response message	03	04
2	July August	UNIT 2 Markup Language Introduction to HTML Basic HTML Structure Common HTML Tags Physical and Logical HTML Types of Images, client side and server-side Image mapping List, Table, Frames Embedding Audio, Video HTML form and form elements Introduction to HTML Front Page CSS with HTML	08	08
3		UNIT 3 Java Script Introduction to Java Script Identifier & operator, control structure, functions Document object model(DOM), DOM Objects(window, navigator, history, location) Predefined functions, math & string	06	07

		functions Array in Java scripts Event handling in Java script		
4	September	UNIT 4 Introduction to PHP Introduction to PHP What does PHP do? Lexical structure Language basics Variable, constant, keywords, Data Types Control Structures Variables variable Type casting, Type Juggling \$_GET, \$_POST, \$_REQUEST Variables	10	11
5		UNIT 5 Function and String in PHP Defining and calling a function Default parameters Variable parameters, Missing parameters Variable function, Anonymous function Types of strings in PHP Printing functions Encoding and escaping Comparing strings Manipulating and searching strings	10	11
6	October	UNIT 6 Arrays in PHP Indexed Vs Associative arrays Identifying elements of an array Storing data in arrays Multidimensional arrays Extracting multiple values Converting between arrays and variables Traversing arrays Sorting Action on entire arrays	07	08

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject : .NET Programming

Subject Teacher: Prof. V. A. Sandbhor.

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Introduction to .NET Framework IDE (Integrated Development Environment) Event Driven Programming . NET Framework Architecture of .Net Execution Process of .Net Application Features of .Net Advantages of .Net Develop simple .Net Application	08	09
2	July August	UNIT 2 Introduction to VB.NET Basics of VB.Net Operators Data Types Control Structures Decision making statements Loops - For, while, do while etc. Exit Statements Build Console Applications Methods - Read(), Readline(), Write(), Writeline() etc. Build Windows Applications Controls - Form, TextBox, Button, Label, CheckBox, Listbox, ComboBox, RadioButton. DateTimePicker, MonthCalender, Timer, Progressbar,	10	11

		Scrollbar, PictureBox, ImageBox, ImageList, TreeView, ListView, Toolbar, StatusBar, Datagridview Menus and PopUp Menu Predefined Dialog controls DialogBox - InputBox(), MessageBox(), MsgBox()		
3		UNIT 3 Object Oriented Programming in VB.NET Class and Object Properties, methods and events. Constructors and Destructors Method overloading Inheritance MyBase , MyClass keywords. Access modifiers: Public, Private, Protected, Friend. Method Overriding. Interfaces. Polymorphism. Exception Handling	06	07
4	September	UNIT 4 Architecture of ADO.NET Database : Connection, Command, DataAdapter ,DataSet, DataReader, DataTable Connection to database with Server Explorer Multiple Table Connection Data binding with controls like TextBox, ListBox, DataGrid. Navigating data source DataGridView, DataFormwizard, Data validation	12	13
5		UNIT 5 Crystal Report Connection to Database, Table, Queries, Building Report, Modifying Report, Formatting Fields and Object Header, Footer, Working with formula fields, Parameter fields, Special fields	09	10

Syllabus Completion Report

Academic Year 2017-2018

Class : TYBCA

Semester : SEM V

Subject :Object Oriented Software Engineering

Subject Teacher: Prof. V.V. Wadekar

SR. NO.	MONTH	TOPIC NAME	EXPECTED LECTURES	CONDUCTED LECTURES
1	July	UNIT 1 Object Oriented Concepts ,Modeling and UML What is Object Orientation? (Introduction to class, object, inheritance, polymorphism) Model Introduction of Modeling Object Oriented Modeling Object oriented system development Function/data methods Object oriented analysis Object oriented construction Object oriented testing Identifying the elements of an object model Identifying classes and objects Specifying the attributes Defining operations Finalizing the object definition Introduction to UML Overview of UML Conceptual Model of UML Architecture Advantages of UML	08	09
	July	UNIT 2 Basic and Advanced Structural	12	13

	And August	Modeling Classes and Relationship Common mechanism Diagrams Class diagram Advanced classes Advanced Relationship Interface , Types and Roles Packages Object Diagram		
2	August	UNIT 3 Basic Behavioral and Architectural Modeling Use cases, Use Case Diagram Interaction Diagram Sequence Diagram Activity Diagram State Chart Diagram Collaboration Diagram Components Diagram Deployment Diagram	12	13
3	August	Object Oriented Analysis Iterative Development Understanding requirements Unified process & UP Phases Inception Elaboration Construction Transition	08	09
4	September	Object Oriented Design The Booch Method, The Coad and Yourdon Method and Jacobson and Rumbaugh Method Generic components of OO Design model System Design process Partitioning the analysis model Concurrency and subsystem allocation Task Management component Data Management component Resource Management component Inter sub-system communication Object Design process	04	05

Hutatma Rajguru Mahavidyalaya, Rajgurunagar

Department of Botany

Time Table

A.Y. 2017-2018 (w.e.f. July 2017)

Sr. No.	Time & Class	Mon	Tue	Wed	Thur	Fri	Sat
1	8.20-9.10 P.Y. Grant	SJS	SJS	SMT	SJS	SMT	SMT
2	8.20-9.10 P.Y. (N.G.)	NS	NS	NS	NS	NS	NS
3	9.20-10.10 S.Y. Grant	KMN	KMN	KMN	GLB	KMN	GLB
4	9.20-10.10 S.Y. (N.G.)	NS	NS	NS	NS	NS	NS
5	11.20-11.50 S.Y. Grant	GLB	GLB				
6	11.20-11.50 S.Y. (N.G.)	SJS	SMT				
7	12.30-3.30 P.Y. Practical Batch (7+1)				KMN+ SMT	SJS+ SMT +GLB+NS	KMN+ SJS+ NS
8	12.30-3.30 S.Y. Practical Batch (10+1)	GLB+ KMN+ SMT	GLB+ SJS+ SMT+ NS	GLB+ KMN+ SJS			

Workload distribution:-

- 1) Prof. Shri. G. L. Bhur (GLB) = 18
- 2) Dr. Ms. K. M. Nimware (KMN) = 20
- 3) Dr. Ms. Sangotha J. S. (SJS) = 20+
- 4) Dr. Ms. S. M. Jagtap (SMT) = 20+
- 5) New staff member (NS) = 22+4

Prof. G.L. Bhat,
Head, Dept. of Botany,
Date: 05/05/2017

To:
The Principal,
Coastal Regional Museum & Vm,
Rajpetnagar, Tal. Khed, Dist. Pune

Subject: Regarding the Workload of the Department of Botany for the A.Y. 2017-2018

Respected Sir,

The workload of the Department of Botany for the A.Y. 2017-2018 (for P.Y. & S.Y.B.Sc.)

Sr.No.	Class	Theory	Practical	Total
1	P.Y.B.Sc.(General)	96 Lectures	24 Tutorials (12 Experiments) (12 Self-NC)	120
2	P.Y.B.Sc.(Horticulture)	64 Lectures		64
3	S.Y.B.Sc.(General)	72 Lectures	12 Tutorials (12 Experiments) (12 Self-NC)	84
	S.Y.B.Sc.(Horticulture)	24 Lectures		24
			Total	192

As per the strength of students, distribution of work is as follows:

Sr.No.	Name	Total
1	Prof. G.L. Bhat (Head)	16 Lectures
2	Dr. K. M. Mahawar (Coordinator)	24 Lectures
3	Dr. Sangeeta J. S.	20 Lectures
4	Dr. Jagtap S.M.	20 Lectures
5	New staff member (Data was not available)	20 Lectures
	Total Workload	100 Lectures

Extra workload - 24 Lectures

As per the workload of the staff required - one


Prof. G.L. Bhat

KNSF Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgarunagar
Department of Botany
Individual Time Table (A.Y 2017-18)

1. Prof. G.L.Bhor

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 to 9.10						
2	9.20 to 10.10				S.Y.B.Sc.		S.Y.B.Sc.
3	11.00 to 11.50	S.Y.B.Sc.	S.Y.B.Sc.				
4	12.30 to 1.30 (Pract)	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.		F.Y.B.Sc.	

2. Dr. K. M. Nimaware

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 to 9.10					S.Y.B.Sc.	
2	9.20 to 10.10	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.			
3	11.00 to 11.50						
4	12.30 to 1.30 (Pract)	S.Y.B.Sc.		S.Y.B.Sc.	F.Y.B.Sc.		F.Y.B.Sc.

3. Dr. Sangeetha J.S.

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 to 9.10 (Th)	F.Y.B.Sc.	F.Y.B.Sc.		F.Y.B.Sc.		
2	8.20 to 9.10 (NG)						
3	9.20 to 10.10 (Th)						
4	9.20 to 10.10 (NG)						
5	11.00 to 11.50 (G)						
6	11.00 to 11.50 (NG)	S.Y.B.Sc.				F.Y.B.Sc.	F.Y.B.Sc.
7	12.30 to 1.30 (Pract)		S.Y.B.Sc.	S.Y.B.Sc.			

2017-18

A.P. 5 M. Jagtap

Sl. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	8.20 to 9.10 (G)			F.Y.B.Sc.		F.Y.B.Sc.	F.Y.B.Sc.
2.	8.20 to 9.10 (B.P.)						
3.	9.20 to 10.10 (G)						
4.	9.20 to 10.10 (NG)						
5.	11.00 to 11.50 (G)						
6.	11.00 to 11.50 (NG)		S.Y.B.Sc.				
7.	12.10 to 3.30 (Pract)	S.Y.B.Sc.	S.Y.B.Sc.		F.Y.B.Sc.	F.Y.B.Sc.	


 Prof. G. L. Patil
HEAD
 Department Of Botany
 Huzarna Rajguru Mahavidyalaya
 Rajgurunagar, Dist. Sol.

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR

Department of Chemistry

Workload

ACADEMIC YEAR-2017-2018

Class	F.Y.B.Sc		S.Y.B.Sc		T.Y.B.Sc		Total
Paper	Theory	Pract.	Theory	Pract.	Theory	Pract.	
Grant	06	28	08	32	24	72	170 hrs
Grant Total	06	28	08	32	24	72	
Non Grant	06	28	08	32	-	-	74hrs
Non Grant Total	06	28	08	32	-	-	
Total	12	56	16	64	24	72	244hrs

Individual Workload Distribution Academic Year-2017-18

Individual Workload				
Sr.No.	Name	Workload(Periods)		
		Theory	Practical	Total
1.	Dr.S.B.Suryawanshi	06	12	18
2	Prof.Miss.S.S.Kolekar	08	12	20
3	Dr.P.S.Kulkarni	08	12	20
4	Prof.Y.S.Walunj	08	12	20
5	Prof.Miss.D.M.Khangate	05	20	25
6	Prof.M.K.Hase	06	20	26
7	Prof.N.D.Dongare	08	16	24
8	Prof.N.V.Gundal	05	20	25
9	Prof.S.N.Mande	05	20	25
10	Prof.S.G.Muthe	05	20	25
11.	Pof.V.M.Shelar	00	24	24
	Total			252

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR								
Department of Chemistry								
Departmental Workload						Year-2017-2018		
Sr. No.	Class	Subject	Strength	Workload(Periods)			Subject wise Details	
				Theory	Practical	Total	Name of the Teachers	Assigned Work load
[1]	[2]	[3]	[4]	[5]	[6]	[7]=[5]+[6]	[8]	[9]
F.Y.B.Sc. [A]								
I	General	Physical & Inorganic Chemistry	120	02	Nil	02	Prof.N.D.Dongare.	02
				02	Nil	02	Prof.M.K.Hase	02
II	General	Organic & Inorganic Chemistry	120	02	Nil	02	Prof.N.D.Dongare	02
				02	Nil	02	Prof.S.N.Mande	02
		Practical Chemistry	15	Nil	01	01	Prof.M.K.Hase	04
				Nil	01	01	Prof.N.D.Dongare.	04
				Nil	01	01	Prof.D.M.Khangate.	04
		Total	240	09	03	11		20
F.Y.B.Sc. [B]								
I	General	Physical & Inorganic Chemistry	120	03	Nil	03	Prof.S.G.Muthe	03
II	General	Organic & Inorganic Chemistry	120	03	Nil	03	Prof.D.M.Khangate	03
				03	Nil	03	Prof.N.V.Gundal	03
		Practical Chemistry	15	Nil	06	06	Prof.V.M.Shelar	24
					05	05	Prof.S.G.Muthe	20
				Nil	01	01	Prof.S.N.Mande	04
		Total	240	06	12	18		54
S.Y.B.Sc. [A]								
I	General	Physical & Analytical Chemistry	120	02	Nil	02	Dr.S.B.Suryawanshi	02
				02	Nil	02	Prof.M.K.Hase	02

II	General	Organic & Inorganic Chemistry	120	02 02	Nil Nil	02 02	Prof.S.S.Kolekar Prof.D.M.Khangate. .	02 02
		Practical Chemistry	15	Nil Nil Nil	04 04 01	04 04 01	Prof.S.S.Kolekar Prof.D.M.Khangate Prof.M.K.Hase	16 16 04
	Total		240	08	09	17		44
S.Y.B.Sc. [B]								
I	General	Physical & Analytical Chemistry	120	04	Nil	04	Prof.M.K.Hase	04

II	General	Organic &Inorganic Chemistry	120	02 02	Nil Nil	02 02	Prof.S.S.Kolekar Prof.S.N.Mande	02 02
		Practical Chemistry	15	Nil	06 01	06 01	Prof.N.V.Gundal Prof.S.N.Mande	24 04
	Total		240	09	07	15		36
T.Y.B.Sc. III								
I	Special	Physical Chemistry	120	04	Nil	04	Prof.Y.S.Walunj.	04
II	Special	Inorganic Chemistry	120	04	Nil	04	Prof.N.D.Dongar e	04
III	Special	Organic Chemistry	120	04	Nil	04	Dr.P.S.Kulkarni	04
IV	Special	Analytical Chemistry	120	04	Nil	04	Dr.S.B.Suryawan shi.	04
V	Special	Industrial Chemistry	120	02 02	Nil Nil	02 02	Prof.N.V.Gundal Prof.S.G.Muthes	02 02
VI	Optional	Agricultura l Chemistry	120	04	Nil	04	Dr.P.S.Kulkarni	04
	Total			24		24		24
T.Y.B.Sc. IV								
I	Special	Physical Chemistry	120	04	Nil	04	Prof.Y.S.Walunj.	04
II	Special	Inorganic Chemistry	120	04	Nil	04	Prof.N.D.Dongar e	04
III	Special	Organic Chemistry	120	04	Nil	04	Prof.S.S.Kolekar	04
IV	Special	Analytical Chemistry	120	04	Nil	04	Dr.S.B.Suryawan shi.	04

V	Special	Industrial Chemistry	120	04	Nil	04	Prof.S.N.Mande	04
VI	Optional	Dairy Chemistry	120	04	Nil	04	Dr.P.S.Kulkarni	04
VII		Physical Chemistry Practicals	12	Nil Nil	03 03	03 03	Prof.Y.S.Walunj Prof.S.N.Mande	12 12
VIII		Inorganic Chemistry Practical	12	Nil Nil	03 03	03 03	Dr.P.S.Kulkarni Prof.N.D.Dongare	12 12
IX		Organic Chemistry Practicals	12	Nil Nil	03 03	03 03	Dr.S.B.Suryawanshi. Prof.M.K.Hase	12 12
	Total				18	42		96

Head of Department
Department of Chemistry

**K.T.S.P.Mandal's
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
TAL-KHED, DIST-PUNE**

Time Table

Name of Department-Chemistry

Academic Year-2017-2018

Dr.S.B.Suryawanshi (Total Workload 18)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10			T.Y.	T.Y.	T.Y.	
4.	10.10 – 11.00	S.Y.			S.Y.		T.Y.
5.	11.00 – 11.50						
6.	12.30 – 3.30 Practical	T.Y. (Inorg)	T.Y. (Org)				T.Y. (Org)

Prof.S.S.Kolekar (Total Workload 20)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10		.			S.Y.	
3.	9.20 – 10.10		T.Y.				
4.	10.10 – 11.00	T.Y.	S.Y.			S.Y.	S.Y.
5.	11.00 – 11.50			T.Y.	T.Y.	.	.
6.	12.30 – 3.30 Practical			S.Y.	S.Y.		S.Y.

Dr.P.S.Kulkarni (Total Workload 20)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10	T.Y.	.	T.Y.			
3.	9.20 – 10.10		.				T.Y.
4.	10.10 – 11.00	.		T.Y.	T.Y.	T.Y.	
5.	11.00 – 11.50	T.Y.	T.Y.				
6.	12.30 – 3.30 Practical				T.Y. (Inorg)	T.Y. (Inorg)	T.Y. (Inorg)

Head of Department
Department of Chemistry

**K.T.S.P.Mandal's
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
TAL-KHED, DIST-PUNE**

Time Table

Name of Department-Chemistry

Academic Year-2017-2018

Prof.Y.S.Walunj (Total Workload 20)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20					S.Y.	S.Y.
2.	8.20 – 9.10						
3.	9.20 – 10.10	T.Y.	T.Y.	T.Y.	T.Y.	T.Y.	T.Y.
4.	10.10 – 11.00						
5.	11.00 – 11.50						
6.	12.30 – 3.30 Practical	T.Y. (Phy)	T.Y. (Phy)	T.Y. (Phy)			

Prof.N.D.Dongare (Total Workload 24)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10	T.Y.	T.Y.				
4.	10.10 – 11.00						
5.	11.00 – 11.50	F.Y.	F.Y.	T.Y.	T.Y.	F.Y.	F.Y.
6.	12.30 – 3.30 Practical			F.Y.	T.Y. (Inorg)	T.Y. (Inorg)	T.Y. (Inorg)s

Prof.D.M.Khangate (Total Workload 25)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20					S.Y.	S.Y.
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00						
5.	11.00 – 11.50	F.Y.	F.Y.	F.Y.			
6.	12.30 – 3.30 Practical	S.Y.	S.Y.	S.Y. F.Y.	S.Y.		

Head of Department
Department of Chemistry

**K.T.S.P.Mandal's
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
TAL-KHED, DIST-PUNE**

Time Table

Name of Department-Chemistry

Academic Year-2017-2018

Prof.M.K.Hase

(Total Workload 26)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00			S.Y.	S.Y.	S.Y.	S.Y..
5.	11.00 – 11.50			F.Y.	F.Y.		
6.	12.30 – 3.30 Practical	S.Y.	F.Y.		T.Y. (Org)	T.Y. (Org)	T.Y. (Org)

Prof. S.N.Mande

(Total Workload 25)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00	F.Y.	F.Y.		S.Y.	S.Y.	S.Y.
5.	11.00 – 11.50						
6.	12.30 – 3.30 Practical	F.Y.		S.Y.	T.Y.	T.Y.	T.Y.

Prof.N.V.Gundal

(Total Workload 25)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00						
5.	11.00 – 11.50	S.Y.	S.Y.		F.Y.	F.Y.	F.Y.
6.	12.30 – 3.30 Practical		S.Y.	S.Y.	S.Y.	S.Y.	S.Y.

Head of Department
Department of Chemistry

**K.T.S.P.Mandal's
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
TAL-KHED, DIST-PUNE**

**Time Table
Name of Department-Chemistry
Academic Year-2017-2018**

Prof.S.G.Muthe (Total Workload 25)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00						
5.	11.00 – 11.50	F.Y.	F.Y.	F.Y.	S.Y.	S.Y.	
6.	12.30 – 3.30 Practical	F.Y.	F.Y.		F.Y.	F.Y.	F.Y.

Prof.V.M.Shelar (Total Workload 24)

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1.	7.30 – 8.20						
2.	8.20 – 9.10						
3.	9.20 – 10.10						
4.	10.10 – 11.00						
5.	11.00 – 11.50						
6.	12.30 – 3.30 Practical	F.Y.	F.Y.	F.Y.	F.Y.	F.Y.	F.Y.

Head of Department
Department of Chemistry

K.T.S.P.Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar

Department of Economics

Academic Year 2017-18

Syllabus Completion Report

Name of Faculty:- Prof.(Dr.)T.G.Gite

Class:- F.Y.B.Com. B

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium	20

		3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	20
6	Jan.2018, Feb.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest	20

	March.2018	6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	
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Class:- S.Y.B.Com. (B)

Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Basic Concepts of macro Economics 1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	8
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	14
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures 4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	12
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation	10

		5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	
6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigoue , Fisher 7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	12
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- T.Y.B.Com. (B)

Subject:- International Economics 303 (B)

Sr. No.	Month & Year	Topics to be Taught	Actual taken Period
1	July2017	Introduction Meaning and Scope of International Economics. 2. Importance of International Trade 3.Domestic Trade Vs International Trade 4.Role of International Trade in Economic Growth	12
2	Aug.2017	Theories of International Trade 1 Theory of absolute cost advantage 2 Theory of comparative cost advantage 3 Theory of factor endowment (Hecksher-ohlin Theory,Leontief Paradox) 4 Intra Industrial Trade	12
3	Sept.2017	Terms of Trade 1 Concept of Terms of Trade A) Gross Barter Terms of Trade	12

		B) Net Barter Terms of Trade C) Income Terms of Trade and Trade Policy D) Single Factorial Terms of Trade E) Double Factorial Terms of Trade 2 Factors affecting on Terms of Trade 3 Free Trade Policy – Meaning, Arguments for and against 4 Protection Policy – Meaning, Arguments for and against	
4	Oct.2017	Regional and International Economic Co-operation 1 Regional Co-operation – European Union (E.U) 2 South Asian Association for Regional co-operation (SAARC) 3 Concept of Trade Blocks and Economic Integration 1 South American Preferential Trading Arrangement (SAPTA) 2 North Atlantic free Trade Agreement (NAFTA) 4 BRICS – Introduction & Functions	12
5	Dec.2017	Balance of Payment 5.1 Concept of Balance of Trade and Balance of Payments 5.2 Balance of Payment on current Account and Capital Account 5.3 Measures to correct disequilibrium of Balance of Payment 5.4 Causes of disequilibrium of Balance of Payment 5.5 Convertibility of Rupee on Current and Capital Account.	12
6	Jan.2017	Foreign Exchange Rate 6.1 Meaning of Foreign exchange rate 6.2 Fixed v/s flexible exchange rate 6.3 Theories of Exchange Rate 6.3.1 Purchasing Power Parity Theory 6.3.2 Balance of Payments Theory	12
7	Feb.2018	Foreign Exchange Market 7.1 Structure of foreign exchange market 7.2 Management of Foreign Exchange -inflow and outflow of foreign capital. 7.3 Euro Dollar Market – Nature and Scope 7.4 Advantages & Disadvantages of Foreign Exchange Market.	12
8	March 2018	Factor Mobility and Foreign Trade Policy 8.1 Foreign Capital – Meaning of Foreign Direct Investment and Foreign Institutional Investments 8.2 Role of Multi National Corporations (MNC's) 8.3 Motives and effects of International Labour Migration 8.4 India's Foreign Trade Policy since 1991 Features, Trends and Evaluation.	12

Class:- S.Y.B.A.
Subject:- Macro Economics S-2

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July, 2017	Introduction 1.1 Meaning, Nature, Scope, Importance and Limitation of Macroeconomics 1.2 Difference between Micro and Macro Economics	08
2	Aug, 2017	National Income 2.1 Concepts: National Income, Gross National Product, Net National Product, Per Capita Income, Disposable Income. 2.2 Importance of National Income. 2.3 Methods of National Income Measurement 2.4 Difficulties in Measurement of National Income 2.5 Circular Flow of National Income	14
3	Sept, 2017	Theory of Employment 3.1 Say's Law of Market 3.2 Classical Theory of Employment 3.3 Criticism by Keynes on Classical Theory 3.4 Keynesian Theory of Employment	12
4	Oct, 2017	Consumption and Investment 4.1 Meaning of Consumption Function 4.2 Average and Marginal Propensity to Consume 4.3 Psychological Law of Consumption 4.4 Factors influencing Consumption Function 4.5 Saving- concept & Function 4.6 Investment- Meaning & Types 4.7 Investment Multiplier- Concept and Limitations 4.8 Principle of Acceleration - Concept	14
5	Dec,2017	Value of Money 5.1 Money- Definition and Functions 5.2 Quantity Theory of Money 5.3 Cash balance approach	12
6	Jan.2018	Inflation and Deflation 6.1 Inflation - Meaning and Causes 6.2 Demand Pull and Cost Push Inflation 6.3 Effects of Inflation 6.4 Measures to control Inflation 6.5 Deflation- Meaning, Causes and Consequences	12
7	Feb.2018	Business Cycles 7.1 Meaning and Features of Business Cycle 7.2 Phases of Business Cycle 7.3 Causes and Effects of Business Cycle. 7.4 Control of Business Cycles- Monetary and Fiscal	12

		Controls	
8	March 2018	Macroeconomic Objectives and Policies 8.1 Macroeconomic Objectives 8.2 Monetary Policy- Meaning and Definitions, Instruments, Advantages and Limitations 8.3 Fiscal Policy- Meaning and Definitions, Instruments and Advantages	12

Class:- T.Y.B.A.

Subject:- International Economics S-3

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Introduction 1.1 International economics- meaning, Scope & Importance 1.2 Inter-regional and international trade 1.3 Importance of International Trade	12
2	Aug. 2017	2.Theories of International Trade 2.1 Theory of absolute cost advantage and comparative cost advantage 2.2 Heckscher-Ohlin theory 2.3 Leontief's paradox, Rybczynski theorem, Intra-Industry Trade	12
3	Sept. 2017	3. Gains from Trade 3.1 Measurement of gains, static and dynamic gains 3.2 Terms of trade – Importance, types and determinants 3.3 Causes of unfavorable terms of trade to developing countries.	12
4	Oct. 2017	4. Balance of Payments 4.1 Balance of trade and Balance of payments- Concepts and components 4.2 Equilibrium and disequilibrium in balance of payments; causes and consequences 4.3 Measures to correct deficit in the balance of payments	12
5	Dec. 2017	5.Trade policy & Exchange Rate 5.1 Free trade policy - case for and against 5.2 Protection Policy – case for and against 5.3 Types of tariffs and quotas 5.4 Exchange rates-Fixed and flexible	12
6	Jan.2018	6. India's Foreign Trade and Policy 6.1 Growth of India's foreign trade 6.2 Changes in the composition and direction of foreign trade since 2000-2001 6.3 Foreign Trade policy 2015-2020. 6.4 India and WTO	12

7	Feb.2018	7. Export Promotion measures 7.1 Export promotion - Contribution of SEZ 7.2 Role of multinational corporations in India. 7.3 FEMA-provisions and impact 7.4 Convertibility of Indian rupee	12
8	March 2018	8. Regional and International Co-operation Nature and Functions of- 8.1 South Asian Association for Regional Co-operation (SAARC) 8.2 Brazil, Russia, India, China and South Africa (BRICS) 8.3 European Economic Community (EEC)	12

Name of Faculty:- Dr.A.M.Pawar

Class:- F.Y.B.A (A)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing Economy. 1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector. 1.4 Major issues of Development in India	12
2	Aug. 2017	2. Population . 2.1 Theory of Demographic Transition. 2.2 Size and Growth of Population. 2.3 Features of Indian population 2.3.1 Sex Composition. 2.3.2 Rural Urban Distribution. 2.3.3 Age Composition. 2.3.4 Density of Population. 2.3.5 Occupational Distribution. 2.3.6 Quality of Population. 2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate. 2.5 Problems of Over Population 2.6 Measures for Population Control. 2.7 Population Policy 2005 onward	12
3	Sept. 2017	3. Poverty and Unemployment	12

		3.1 Meaning and Concept of Poverty. 3.2 Poverty line- Need of redefining. 3.3 Measurement of Poverty. 3.4 Causes of Poverty. 3.5 Measures of eradication of Poverty. 3.6 Unemployment – Nature & Types, Causes & Measures	
4	Oct. 2017	4. Agriculture. 4.1 Place of Agriculture in Indian economy. 4.2 Agricultural Productivity – Causes of Low Productivity & Measures. 4.3 Green Revolution- Achievements & Failures. 4.4 Sources of Agricultural Finance. 4.5 Agricultural Marketing – Defects & Measures. 4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide 4.7 Special Economic Zone- Concept, Features, Problems.	12
5	Dec. 2017	5. Industry. 5.1 Role of Industrialization. 5.2 Industrial Policy – 1991. 5.3 New Economic Reforms – Concept i) Liberalization ii) Privatisation, iii) Globalization . 5.4 Small and Large Scale Industry – Growth and Problems. 5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.	12
6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- F.Y.B.A (C)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing Economy. 1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector. 1.4 Major issues of Development in India	12
2	Aug. 2017	2. Population . 2.1 Theory of Demographic Transition. 2.2 Size and Growth of Population. 2.3 Features of Indian population 2.3.1 Sex Composition. 2.3.2 Rural Urban Distribution. 2.3.3 Age Composition. 2.3.4 Density of Population. 2.3.5 Occupational Distribution. 2.3.6 Quality of Population. 2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate. 2.5 Problems of Over Population 2.6 Measures for Population Control. 2.7 Population Policy 2005 onward	12
3	Sept. 2017	3. Poverty and Unemployment 3.1 Meaning and Concept of Poverty. 3.2 Poverty line- Need of redefining. 3.3 Measurement of Poverty. 3.4 Causes of Poverty. 3.5 Measures of eradication of Poverty. 3.6 Unemployment – Nature & Types, Causes & Measures	12
4	Oct. 2017	4. Agriculture. 4.1 Place of Agriculture in Indian economy. 4.2 Agricultural Productivity – Causes of Low Productivity & Measures. 4.3 Green Revolution- Achievements & Failures. 4.4 Sources of Agricultural Finance. 4.5 Agricultural Marketing – Defects & Measures. 4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide	12

		4.7 Special Economic Zone- Concept, Features, Problems.	
5	Dec. 2017	5. Industry. 5.1 Role of Industrialization. 5.2 Industrial Policy – 1991. 5.3 New Economic Reforms – Concept i) Liberalization ii) Privatisation, iii) Globalization . 5.4 Small and Large Scale Industry – Growth and Problems. 5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.	12
6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- S.Y.B.A (S-1)

Subject:- Micro Economics

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Introduction 1.1 Micro Economics - Definition, Scope, importance & limitations 1.2 Basic Economic Problems 1.3 Tools of Economic Analysis -Functional relationships, Schedules, Graphs & Equations.	10
2	Aug. 2017	2. Theory of Demand 2.1 Cardinal Utility Analysis- concept of utility, assumptions - Diminishing	18

		<p>Marginal Utility.</p> <p>2.2 Ordinal Utility Analysis- Assumptions – Indifference Curve, concept & properties. Consumer Equilibrium. – Income, Substitution & Price effect on equilibrium.</p> <p>2.3 Demand – Law of Demand, determinants of Demand</p> <p>2.4 Elasticity of Demand – Price elasticity - definition, types, Determinants-</p> <p>Methods of measurements – importance. Income elasticity – Types, importance, Cross elasticity – Types, importance</p>	
3	Sept 2017	<p>3. Theory of Production & Cost.</p> <p>3.1 Production Function,</p> <p>3.2 The law of Variable Proportions,</p> <p>3.3 Law of returns & returns to Scale.</p> <p>3.4 Internal and External Economies & Diseconomies.</p> <p>3.5 Revenue concepts: Total Revenue, Average & Marginal Revenue.</p> <p>3.6 Cost concepts: Fixed & Variable cost, Opportunity cost, Average & Marginal cost, Private & Social Cost, Short run and long run cost curves.</p>	08
4	Oct. 2017	<p>4. Supply Analysis</p> <p>4.1 Supply – concept</p> <p>4.2 Determinants</p> <p>4.3 Law of Supply,</p> <p>4.4 Elasticity of Supply.</p>	12
5	Dec. 2017 Jan. 2018	<p>5. Market</p> <p>5.1 Meaning & classification</p> <p>5.2 Perfect Competition: concept - Characteristics, price determination in the short run and long run, Equilibrium of the firm and industry.</p> <p>5.3 Monopoly- Concept, Characteristics and short and long run Equilibrium.</p> <p>Price discrimination.</p> <p>5.4 Monopolistic Competition: concept, Characteristics and short & long run</p> <p>Group Equilibrium, Selling cost.</p> <p>5.5 Oligopoly – Concept , Characteristics</p> <p>5.6 Duopoly: - Concept & Characteristics.</p>	20
6	Jan. 2018 Feb. 2018	<p>6. Factor Pricing.</p> <p>6.1 Marginal Productivity theory of Distribution.</p> <p>6.2 Rent – Concept -Ricardian Theory of Rent, Modern Theory of Rent, Quasi Rent..</p> <p>6.3 Wages – Concept, Types – Modern theory of wage and Collective Bargaining.</p>	20

		6.4 Interest –Concept, Loanable funds theory and Keynes’s Liquidity preference theory. 6.5 Profit – Concept, Risk and uncertainty theory and Innovation theory.	
7	March 2018	7. Welfare Economics 7.1 Definition 7.2 Pigovian Welfare Economics 7.3 Social Welfare Function...	08

Class:- T.Y.B.A (G-3)

Subject:- Economic Development & Planning

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Economic Development and Growth 1.1 Meaning of Economic Development and Growth 1.2 Indicators of Economic Growth 1.3 Indicators of Economic Development 1.4 Differences between Economic Development & Growth	12
2	Aug. 2017	2. Developing Countries 2.1 Concept- Developed, Developing Countries 2.2 Characteristics of Developing Countries 2.2.1 Economic Characteristics 2.2.2 Demographic Characteristics 2.2.3 Technological Characteristics 2.2.4 Socio - Cultural Characteristics 2.2.5 Other Characteristics	12
3	Sept. 2017	3. Constraints on Development Process 3.1 Vicious Circle of Poverty 3.2 Population Explosion 3.3 Low Productivity of Agriculture 3.4 Scarcity of Capital 3.5 Inappropriate Technology 3.6 Socio- Cultural Constraints 3.7 Political and Administrative Constraints 3.8 External Bottleneck	12
4	Oct. 2017	4. Theories of Economic Development 4.1 Classical Theories- Adam Smith, Ricardo & Malthus 4.2 Karl Mark’s Theory of Economic Development 4.3 Schumpeterian Theory of Economic Development	12
5	Dec. 2017	5. Approaches to Economic Development 5.1 Big Push Theory 5.2 Balanced Growth 5.3 Imbalanced Growth	12

6	Jan. 2018	6. Foreign Capital and Development 6.1 Meaning & Role of Foreign Capital in Economic Development 6.2 Problems of Foreign Capital 6.3 Private Foreign Investment- Types & Role 6.4 Public Foreign Investment-Types 6.5 Foreign Aid- Tide and Untied	12
7	Feb. 2018	7. Macro Economic Policy 7.1 Monetary Policy- Objectives, Instruments and Limitations 7.2 Fiscal Policy- Objectives, Instruments and Limitations 7.3 Fiscal Policy in Cyclical Fluctuations	12
8	March 2018	8. Economic Planning 8.1 Meaning & Definition 8.2 Need of Planning 8.3 Objective of Economic Planning- Economic, Social and Political 8.4 Inclusive Growth Approach & 11th five year plan 8.5 National Institution for Transforming India Aayog (NITI AYOOG)	12

Class:- F.Y.B.Com. A

Subject:- Business Economics (Micro) 103

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare	12

		3. Goodwill of employees	
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics- Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination	20

		5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

Name of Faculty:- Dr. R.S.Shirasi

Class:- F.Y.B.Com.

Subject:- Banking And Finance

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July, 2017	Evolution of banking 1.1 Origin of the word 'Bank' 1.2 Meaning and definition of bank 1.3 Evolution of banking in the West 1.4 Evolution of banking in India.	06
2	Aug. 2017	Functions of Bank 2.1 Primary functions : A) Accepting deposits : Demand deposits: Current and Savings; Time deposits-Recurring and Fixed deposits B) Granting Loans and Advances- Term Loan, Short term credit, Overdraft, Cash Credit,Purchasing and Discounting of bills, 2.2 Secondary functions : A) Agency Functions- Payment and Collection of Cheques, Bills and Promissory notes, Execution of standing instructions, Acting as a Trustee, Executor. B) General Utility Functions: Safe Custody, Safe deposit vaults, Remittances of funds, Pension payments, Acting as a dealer in foreign exchange.	14
3	Oct. 2017	Procedure for opening and operating of deposit account 3.1 Procedure for Opening of Deposit Account: Know Your Customer Norms (KYC Norms), Application form, Introduction, Proof of residence, Specimen signature and	14

		<p>Nomination: Their importance. No Frills Account</p> <p>3.2 Procedure for Operating Deposit Account: Pay-in-slips, Withdrawal slips, Issue of pass book, (Current Savings or Recurring deposits), Issue of Cheque book, Issue of fixed deposit receipt, Premature encashment of fixed deposits and loan against fixed deposit.</p> <p>Recurring deposits: Premature encashment and loan against recurring deposit.</p> <p>3.3 a) Closure of accounts b) Transfer of accounts to other branches</p> <p>3.4 Types of account holders a) Individual account holders- Single or joint, Illiterate, Minor, Married woman, Pardahnashin woman, Non resident accounts b) Institutional account holders- Sole proprietorship, Partnership firm, Joint stock company, Hindu undivided family, Clubs, Associations and Societies and Trusts.</p>	
4	Sept. 2017	<p>Methods of Remittances</p> <p>4.1 Demand drafts, bankers' Cheques, 4.2 Mail transfer, Telegraphic transfer, 4.3 Electronic Funds Transfer.</p>	14
5	Nov. 2017	<p>Lending principles, Credit Creation and Balance Sheet of a bank</p> <p>5.1 Safety, Liquidity, Profitability, Diversification of risks Conflict between liquidity and profitability 5.2 Multiple Credit Creation: Process and Limitations 5.3 Balance sheet of a commercial bank.</p>	16
6	Dec. 2017	<p>Negotiable Instruments</p> <p>6.1 Definition, meaning and characteristics of Promissory note, Bill of Exchange and Cheque 6.2 Types of Cheques- Bearer, Order and Crossed 6.3 Types of Crossing- General and Special.</p>	16
7	Dec. 2017 Jan. 2018	<p>Endorsement</p> <p>7.1 Definition and meaning of endorsement 7.2 Types of endorsement- Blank, Full or Special, Restrictive, Partial, Conditional, Sans Recourse, Facultative. 7.3 Effects of endorsement.</p>	08
8	Feb. 2018	<p>Technology in Banking</p> <p>8.1 Need and importance of technology in banking 8.2 ATM, Credit card, Debit card, Tele Banking- Net banking, SWIFT (Society for Worldwide Inter- bank Financial Telecommunication), Concept of Core Banking Solution</p>	08

Class:- S.Y.B.Com. (A)
Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Basic Concepts of macro Economics 1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	8
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	14
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures 4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	12
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation 5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	10

6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigoue , Fisher 7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	12
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- T.Y.B.Com. (A)

Subject:- Indian & Global Economic Development 303 (A)

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Introduction 1.1 Basic Characteristics of the Indian Economy as an emerging economy. 1.2 Comparison of the Indian Economy with developed economies with respect to 1.2.1 National Income 1.2.2 Per-Capita Income 1.2.3 Agriculture 1.2.4 Industry 1.2.5 Service Sector	12
2	Aug. 2017	Agricultural Development in India Since Independence 2.1 Place of Agriculture in Indian Economy 2.2 Constraints in Agricultural Development 2.3 Rural Indebtedness – Causes and measures 2.4 Agricultural Marketing – Problems and measures 2.5 Price Policy – Minimum Support Price (M.S.P.)	12
3	Sept. 2017	Industrial Development in India Since 1991 3.1 Role of Industrialization in Economic development 3.2 Role of Small, Medium and Large Scale Enterprises	12

		(SMEs) – Problems & Prospects 3.3 New Industrial Policy 1991 3.4 Evaluation of Industrial Policy 1991	
4	Oct. 2017	Infrastructure in India Since 1991 4.1 Role of Basic infrastructure in economic development of India. 4.2 Private v/s Public investment in infrastructure development 4.3 Role of Private Sector in infrastructural development 4.4 Role of Public Sector in infrastructural development	12
5	Dec. 2017	Human Resource Development 12 5.1 Role of Human Resource in Economic Development 5.2 Concept of Human Development Index (HDI) 5.3 Concept of Human Poverty Index 5.4 Concept of Gender – related development index 5.5 Gender Employment measures	12
6	Jan. 2018	Global Economic Development and Foreign Capital 6.1 Meaning and Challenges of Liberalization, Privatization & Globalization. 6.2 Meaning and Role of Foreign Capital 6.3 Need for Foreign Capital 6.4 Forms of foreign capital 6.5 Advantages & Disadvantages of Foreign Capital	12
7	Feb. 2018	Foreign Trade and Balance of Payment 7.1 Importance of Foreign Trade in Economic Development. 7.2 Concept of Balance of Trade and Balance of Payment 7.3 India's Balance of Payment Position since 1991 7.4 Convertibility of Indian Rupee – Current & Capital Account 7.5 Current Export – Import Policy (EXIM Policy)	12
8	March 2018	Regional & International Economic co-operation Importance, Objectives, Structure and functions of – 8.1 South Asian Association for Regional co-operation (SAARC) 8.2 International Monetary Fund (IMF) 8.3 World Bank or International Bank for Reconstruction and Development (IBRD) 8.4 World Trade Organization (WTO) 8.5 BRICS – Introduction & Functions	12

Class:- S.Y.B.A. (G-2)
Subject:- Modern Banking

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Evolution of Modern Banking 1.1 Meaning & Definition of Bank. 1.2 Banking in Europe, USA & Asia. 1.3 Evolution of Banking in India. 1.4 Structure of Indian Banking System	12
2	Aug. 2017	Functions of Commercial Banks 2.1 Primary Functions-Accepting Deposits, Granting Loans & Advances. 2.2 Secondary Functions-Agency Functions, General Utility Functions 2.3 Methods of Remittances.	12
3	Sept. 2017	Principles of Commercial Banks 3.1 Liquidity, Profitability and Safety- Meaning & Concept. 3.2 Multiple Credit Creation-Process & Limitations. 3.3 Components of Balance Sheet of Commercial Banks	12
4	Oct. 2017	Operation & Types of Accounts 4.1 Opening and operating of Deposit Account. 4.2 Closure and Transfer of Accounts 4.3 Types of Account Holders - Individual & Institutional 4.4 No Frills Account, Escrow Account	12
5	Dec. 2017	Negotiable Instruments 5.1 Promissory Note, Bill of Exchange and Cheque - meaning, Definition & Characteristics 5.2 Types of Cheque – Bearer, Order & Crossed 5.3 Types of Crossing- General & Special 5.4 Endorsement- Definition, Types & Effects	12
6	Jan. 2018	New Technology in Banking 6.1 E-Banking – Need and Importance 6.2 Meaning, concept and operation of – 6.2.1 Automated Teller machine- ATM 6.2.2 Credit Card 6.2.3 Debit Card 6.2.4 Tele Banking 6.2.5 Mobile Banking 6.2.6 Net Banking 6.2.7 Society for worldwide Interbank Financial Telecommunication 6.2.8 Core Banking 6.2.9 RTGS	12
7	Feb. 2018	Reserve Bank of India	12

		7.1 Functions 7.2 Money Measures- M0, M1, M2, M3, M4 7.3 Monetary policy- Meaning & objectives 7.4 Instruments of Credit Control	
8	March 2018	Co- operative banking in India 8.1 Structure of Co-operative banking in India 8.2 97th Constitutional Amendment in co-operative law 8.3 NABARD- objectives, Functions & working 8.4 Challenges before co-operative Banking	12

Class:- T.Y.B.A. (S-4)
Subject:- Public Finance

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	1 Public Finance 1.1 The role of Government in an economy 1.2 Meaning, Nature, Scope and Importance of Public Finance 1.3 Private Finance and Public Finance 1.4 Principle of Maximum Social Advantage- Dr. Dalton	10
2	Aug. 2017	2. Public Expenditure 2.1 Meaning and Principle of Public Expenditure 2.2 Classification of Public Expenditure 2.3 Trends of Public Expenditure in India. 2.4 Causes of increase in Public Expenditure 2.5 Effects of Public Expenditure	14
3	Sept. 2017	3. Public Revenue 3.1 Sources of Public Revenue 3.2 Meaning and Objectives of Taxation 3.3 Principles of taxation- Benefit approach, Ability to pay 3.4 Concepts- Impact of Tax, incidence of Tax, Shifting of Tax and Taxable Capacity 3.5 Indian Tax Structure- Direct and Indirect tax, Progressive, proportional and Regressive	12
4	Oct. 2017	4. Public Debt 4.1 Meaning and types of Public Debt 4.2 Sources of internal and external Public Debt 4.3 Effects of Public Debt 4.4 Methods of repayment	12
5	Dec. 2017	5. Budget 5.1 Meaning, nature and objectives of Budget 5.2 Types of Budget – Revenue, Capital, Surplus, Deficit	10

		and Balance Budget 5.3 Preparation of Indian Central Budget 5.4 Gender Budget	
6	Jan. 2018	6. Deficit Financing 6.1 Meaning, Objectives 6.2 Need, Process and Causes 6.3 Trends in India Deficit finance since 2001 6.4 Effects of Deficit Financing	14
7	Feb. 2018	7. Centre-State Financial Relationship 7.1 Constitutional Provisions 7.2 Role and Working of finance Commission 7.3 Recommendation of 13th and 14th finance Commission 7.4 Centre- State Conflict	12
8	March. 2018	8. Fiscal Policy 8.1 Meaning, Role and Objectives of Fiscal Policy 8.2 Review of Indian Fiscal Policy since 2001 8.3 Fiscal Policy in developing economy 8.4 Limitations of Fiscal policy	12

Name of Faculty:- Prof.S.S.Ghongade

Class:- F.Y.B.Com. (D)

Subject:- Business Economics (Micro) 103

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige	12

		2. Social responsibility and welfare 3. Goodwill of employees	
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium	20

		5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

Class:- F.Y.B.A (B)

Subject:- Indian Economy Problems & Prospects

Sr. No	Month &Year	Topics to be Taught	Actual taken Period
1	July 2017	1. Developing Economy 1.1 Developed and Developing Economy – Meaning & Concept. 1.2 Basic Characteristics of Indian Economy as a Developing Economy. 1.3 Comparison of Indian Economy with Developed Countries - a) Population b) Per-capita Income c) Human Development Index. d) Agriculture e) Industry f) Service Sector. 1.4 Major issues of Development in India	12
2	Aug. 2017	2. Population . 2.1 Theory of Demographic Transition. 2.2 Size and Growth of Population. 2.3 Features of Indian population 2.3.1 Sex Composition. 2.3.2 Rural Urban Distribution. 2.3.3 Age Composition. 2.3.4 Density of Population. 2.3.5 Occupational Distribution. 2.3.6 Quality of Population. 2.4 Causes of growing Population.- High Birth rate and Decreasing Death rate. 2.5 Problems of Over Population 2.6 Measures for Population Control.	12

		2.7 Population Policy 2005 onward	
3	Sept. 2017	3. Poverty and Unemployment 3.1 Meaning and Concept of Poverty. 3.2 Poverty line- Need of redefining. 3.3 Measurement of Poverty. 3.4 Causes of Poverty. 3.5 Measures of eradication of Poverty. 3.6 Unemployment – Nature & Types, Causes & Measures	12
4	Oct. 2017	4. Agriculture. 4.1 Place of Agriculture in Indian economy. 4.2 Agricultural Productivity – Causes of Low Productivity & Measures. 4.3 Green Revolution- Achievements & Failures. 4.4 Sources of Agricultural Finance. 4.5 Agricultural Marketing – Defects & Measures. 4.6 Suicide of Farmer's - Causes and Measures to prevent Farmer's Suicide 4.7 Special Economic Zone- Concept, Features, Problems.	12
5	Dec. 2017	5. Industry. 5.1 Role of Industrialization. 5.2 Industrial Policy – 1991. 5.3 New Economic Reforms – Concept i) Liberalization ii) Privatisation, iii) Globalization . 5.4 Small and Large Scale Industry – Growth and Problems. 5.5 Growth of Knowledge Based Industry – IT, Software Consultancy.	12
6	Jan. 2018	6. Labour. 6.1 Meaning and Classification of Labour. 6.2 Characteristics of Industrial Labour. 6.3 Industrial Dispute :- Causes, Measures for Settlement. 6.4 Social Security Measures in India.	12
7	Feb. 2018	7. Planning. 7.1 Meaning, Concept, Need and Objectives. 7.2 Types of Planning – Merits and Demerits. 7.3 Objectives, Achievements, and Failures of 11th Five Year Plan. 7.4 Objectives, of 12th five year plan	12
8	March 2018	8. Economy of Maharashtra. 8.1 Salient Features of Economy of Maharashtra. 8.2 Co-operative Movement – Progress, Problems & Prospectus. 8.3 Role of Co-operative in Economic Development of Maharashtra. 8.4 Regional Imbalance Causes & Preventive Measures. 8.5. Water Management concept and utility	12

Class:- T.Y.B.Com. (C)

Subject:- International Economics 303 (B)

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Introduction Meaning and Scope of International Economics. 2. Importance of International Trade 3. Domestic Trade Vs International Trade 4. Role of International Trade in Economic Growth	12
2	Aug. 2017	Theories of International Trade 1 Theory of absolute cost advantage 2 Theory of comparative cost advantage 3 Theory of factor endowment (Heckscher-ohlin Theory, Leontief Paradox) 4 Intra Industrial Trade	12
3	Sept. 2017	Terms of Trade 1 Concept of Terms of Trade A) Gross Barter Terms of Trade B) Net Barter Terms of Trade C) Income Terms of Trade and Trade Policy D) Single Factorial Terms of Trade E) Double Factorial Terms of Trade 2 Factors affecting on Terms of Trade 3 Free Trade Policy – Meaning, Arguments for and against 4 Protection Policy – Meaning, Arguments for and against	12
4	Oct. 2017	Regional and International Economic Co-operation 1 Regional Co-operation – European Union (E.U) 2 South Asian Association for Regional co-operation (SAARC) 3 Concept of Trade Blocks and Economic Integration 1 South American Preferential Trading Arrangement (SAPTA) 2 North Atlantic free Trade Agreement (NAFTA) 4 BRICS – Introduction & Functions	12
5	Dec. 2017	Balance of Payment 5.1 Concept of Balance of Trade and Balance of Payments 5.2 Balance of Payment on current Account and Capital Account 5.3 Measures to correct disequilibrium of Balance of Payment 5.4 Causes of disequilibrium of Balance of Payment 5.5 Convertibility of Rupee on Current and Capital Account.	12
6	Jan. 2018	Foreign Exchange Rate 6.1 Meaning of Foreign exchange rate	12

		6.2 Fixed v/s flexible exchange rate 6.3 Theories of Exchange Rate 6.3.1 Purchasing Power Parity Theory 6.3.2 Balance of Payments Theory	
7	Feb.2018	Foreign Exchange Market 7.1 Structure of foreign exchange market 7.2 Management of Foreign Exchange -inflow and outflow of foreign capital. 7.3 Euro Dollar Market – Nature and Scope 7.4 Advantages & Disadvantages of Foreign Exchange Market.	12
8	March 2018	Factor Mobility and Foreign Trade Policy 8.1 Foreign Capital – Meaning of Foreign Direct Investment and Foreign Institutional Investments 8.2 Role of Multi National Corporations (MNC's) 8.3 Motives and effects of International Labour Migration 8.4 India's Foreign Trade Policy since 1991 Features, Trends and Evaluation.	12

Class:- F.Y.B.Com. F

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	12

2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4	20

		Oligopoly – Features	
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

Name of Faculty:- Prof.S.V.Dhanapune

Class:- S.Y.B.Com. (D)

Subject:- Business Economics (Macro) 203

Sr. No	Month & Year	Topics to be Taught	Actual taken Period
1	July 2017	Basic Concepts of macro Economics 1 Meaning of Macro Economics 2 Nature and Scope of Macro Economics 3 Significance and limitations of Macro Economics 4 Difference between Micro and Macro Economics	8
2	Aug. 2017	National Income 1 Meaning & Importance of National Income 2 Concept - a) Gross National Product (GNP) b) Net National Product (NNP) c) Income at Factor cost or National Income at Factor Prices d) Per Capita Income e) Personal Income (PI) f) Disposable Income(DI) 3 Measurement of National Income – Circular Flow of Income-Two sector model 4 Difficulties in Measurement of National Income	14
3	Sept. 2017	Money 1 Meaning and functions of Money 2 Demand for Money – Classical and Keynesian Approach 3 Supply of Money a) Role of Central Bank – Credit Control- Quantitative and Qualitative b) Reserve Bank of India's New Money Measures	12

		4 Role of Commercial Banks – Process of Multiple Credit Creation and its limitations	
4	Oct. 2017	Value of Money 1 Meaning & Concept of Value of Money 2 Quantity Theory of Money 3 Cash Balance approach – Cambridge Equation - Pigou, Marshall, Keynes 4 Milton Friedman's Approach 5 Difference between Quantity Theory and Cash Balance Approach	14
5	Dec.2017	Inflation and Deflation 5.1 Inflation and Deflation – Meaning, Causes and effects 5.2 Demand Pull and cost Push inflation 5.3 Inflationary Gap 5.4 Philips Curve – Supply side Economics 5.5 Stagflation	10
6	Jan.2018	Trade Cycle – 6.1 Meaning, Definition and features of Trade Cycle 6.2 Phases of Trade Cycle 6.3 Policy for control of Trade Cycle – Monetary and Fiscal Measures	12
7	Feb.2018	Theories of Output and Employment 7.1 Classical Theories of Employment – Says , Pigou , Fisher 7.2 Keynesian Criticism on Classical Theories of Employment 7.3 Keynesian Theory of Employment	12
8	March.2018	Public Finance 8.1 Meaning, Nature and Scope of Public Finance 8.2 Principle of Maximum Social advantage-Dr. Dalton's Approach 8.3 Public Revenue and Expenditure 8.4 Types of Taxation 8.5 Principles of Taxation 8.6 Effects of Taxation 8.7 Causes of increasing Public Expenditure	14

Class:- F.Y.B.Com. C

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics.	12

		3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost	16

		a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm 5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16

4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08
5	Dec.2017, Jan.2018	PRICING UNDER VARIOUS MARKET CONDITIONS 5.1 Perfect Competition – Features and equilibrium 5.2 Monopoly – Features and equilibrium, Price Discrimination 5.3 Monopolistic competition - Features and equilibrium 5.4 Oligopoly – Features	20
6	Jan.2018, Feb.2018 March.2018	FACTOR PRICING 6.1 Marginal Productivity theory of Distribution. 6.2 Rent a) Theories of Rent i) Ricardian Theory of Rent ii) Modern Theory of Rent 6.3 WAGES - i) Backward sloping Supply curve of Labour. ii) Collective Bargaining & Trade Unions 6.4 INTEREST – a) Theories of Interest – i) Loanable Fund Theory of Interest ii) Keynes Liquidity Preference Theory of Interest 6.5 PROFIT - a) Theories of Profit – i) Dynamic Theory of Profits ii) Innovation Theory of Profit iii) Risk and Uncertainty Theory of Profit	20

Class:- F.Y.B.Com. G

Subject:- Business Economics (Micro) 103

Sr. No.	Month & Year	Topics to be Taught	Actual taken Period
1	July, Aug. 2017	INTRODUCTION. 1 Meaning, Nature and Scope of Business Economics- (Micro) 2 Difference between Micro and Macro Economics. 3 Tools for Analysis a. Functional Relationships b. Schedules c. Graphs d. Equations 4 Goals of firms a) Economic Goals of Firms 1. Profit Maximization 2. Shareholders Wealth Maximization 3. Management Reward Maximization 4. Growth of the firm	12

		5. Sales maximization 6. Long run survival b) Non-Economic goals 1. Political power, Prestige 2. Social responsibility and welfare 3. Goodwill of employees	
2	Aug., Sept. 2017	DEMAND ANALYSIS 1 Elasticity of Demand, Types of Elasticity, Price Elasticity, Income Elasticity and Cross Elasticity. 2 Consumer Behaviour a) Marginal Utility Approach- Limitations b) Indifference Curve Analysis - Concept - Characteristics - Consumer Equilibrium 3 Demand Forecasting and Estimation a) Meaning and objectives of Demand Forecasting b) Methods of Demand Forecasting c) Descriptive Analysis of i) Direct Methods 1) Consumer Survey 2) Expert opinion 3) Simulating market situation 4) Controlled Market Experiments ii) Indirect Methods 1) Simple correlation 2) Trend Projections	20
3	Oct. 2017	PRODUCTION AND COST ANALYSIS 1 Production Function – Meaning 2 Law of Variable Proportions - The Three Stages 3 Law of Returns to Scale - The Three Stages 4 Economies and Diseconomies of Scale – Internal and External 5 Cost Analysis – Types of Costs a) Types of Costs 1) Total cost 2) Average Cost 3) Marginal Cost 4) Opportunity cost b) Behaviour of Cost Curves 1) In the Short Run 2) In the Long Run	16
4	Dec.2017	REVENUE BEHAVIOUR 4.1 Meaning and Importance of Revenue Concepts 4.2 Total Revenue (TR), Average Revenue (AR) Marginal Revenue (MR). 4.3 Relationship between Total Revenue, Average Revenue and Marginal Revenue	08

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Teaching Plan
F. Y. B. Sc. - Botany: 2017- 18
Plant Diversity
(Term – I; Paper I)

Sr. No	Month	Topics
1	July	<p>Introduction: General outline of plant kingdom, Introduction to plant diversity with reference to following groups:- Cryptogams: Thallophyta (Algae, Fungi, Lichens, And Bacteria), Bryophyta and Pteridophyta, Phanerogams: Gymnosperms and Angiosperms.</p> <p>Algae: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Spirogyra</i>.</p>
2	Aug	<p>Fungi: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Cystopus (Albugo)</i>.</p> <p>Lichens: General characters, Nature of Association, Types of Lichens on the basis of thallus morphology, Economic importance of lichens.</p> <p>Bryophytes: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Riccia</i>.</p>
3	Sep	<p>Pteridophytes: General characters, Outline classification according to G.M. Smith (1955) up to classes with reasons. Life cycle of <i>Nephrolepis</i>.</p> <p>Gymnosperms: General characters, Outline classification according to Chamberlain (1934) up to classes with reasons. Life cycle of <i>Cycas</i>.</p>
4	Oct	<p>Angiosperms: General characters, Causes of evolutionary success of Angiosperms, comparative account of monocotyledons and dicotyledons.</p> <p>Revision & Question paper discussion</p> <p>Internal Theory Examination</p>

Dr. Jagtap S.M.

Teaching Plan
F. Y. B. Sc. - Botany: 2017- 18
Industrial Botany
(Term – I; Paper – II)

Sr. No	Month	Topics
1	July	<p>Introduction to Industrial Botany Concept of Industrial Botany. Plant resources and industries: Food, fodder, fibers, medicines, timber, dyes, gum, tannins. (Two examples of each resource and the relevant industries with which they are associated).</p> <p>Floriculture Industry Introduction to floriculture. Important floricultural crops, open cultivation practices, harvesting and Marketing of Tuberose. Greenhouse technology: Concept, advantages and limitations. Cultivation practices (greenhouse technology), harvesting and marketing of Rose and Gerbera.</p>
2	August & Sep	<p>Plant Nursery Industry Concept and types of nurseries: ornamental plant nursery, fruit plant nursery, medicinal plant nursery, vegetable plant nursery, orchid nursery, forest nursery (with reference to infrastructure required, outputs, commercial applications and profitability). Propagation methods: Seed propagation, natural vegetative propagation and artificial vegetative propagation (Cutting: Stem, Layering: Air layering, Grafting Stone grafting and Approach grafting, Budding : T budding).</p> <p>Plant Tissue Culture Industry Concept of tissue culture. Culture techniques: Types of explants, preparation of media, methods of sterilization. Inoculation techniques, incubation and hardening. Commercial significance.</p>
3	Sep	<p>Agri industries: Organic Farming: Concept, need of organic farming, Types of organic fertilizers, advantages and limitations Seed industries: Importance of seed industries, seed production, seed Processing and seed marketing with reference to cotton. Major seed industries and corporations of India.</p>
4	Oct	<p>Mushroom Industries: Mushroom cultivation: Plant resources, cultivation practices of Oyster mushroom, uses of mushrooms, value added products, commercial significance.</p> <p>Revision & Question paper discussion Internal Theory Examination</p>

Dr. Sangeetha J.S.

Teaching Plan

S.Y.B.Sc. Botany: 2017- 18

Taxonomy of Angiosperms and Plant Community

(Semester I, Paper I)

Sl. No.	Month	Topic
1	June	Introduction to Plant Taxonomy Definition, scope, objectives and importance, Identification, classification, nomenclature, Concept of Systematics
2	July & August	Systems of classification Types of systems with their merits and limitations- a)Artificial system- Carl Linnaeus b)Natural system -Bentham and Hooker, c) Phylogenetic system- Engler and Prantl Taxonomic literature Flora, monograph, revisions, manuals, journals, periodicals and references books. Study of Plant Families Study of following families with reference to systematic position, salient features, floral formula, floral diagram and any five examples with their economic importance. Annonaceae, Meliaceae, Myrtaceae, Rubiaceae, Solanaceae, Asclepiadaceae, Euphorbiaceae and Amaryllidaceae
3	August	Botanical Nomenclature History, Binomial nomenclature, ICBN- principles, Rules of nomenclature, Coining of generic names and specific epithets, Ranks and endings of taxa names, Principle of priority, Effective and valid publications, Single and double authority citation, Nomina conservanda. Sources of data for Systematics Morphology, Anatomy, Cytology, Embryology, Phytochemistry, Molecular biology
4	September	Introduction to ecology Definition, Concept, Autecology and synecology, Ecosystem and its components: biotic and abiotic, Food chain, Food web, Ecological pyramids. Ecological grouping of the plants Ecological grouping of the plants with reference to their significance of adaptive external and internal features: Hydrophytes, Mesophytes, Xerophytes, Halophytes with examples.
5	October	Computer in taxonomy Concept of herbarium their advantages and limitations, Digital /e-herbarium and their advantages, Data bases: concept and needs, Use of computer in plant classification. Revision and Question paper discussion

Dr. K. M. Nitnaware

Teaching Plan

S. Y. B. Sc. [Botany]: 2017 - 18

Plant Physiology

(Semester I, Paper II)

Sr. No.	Month	Topic
1	June	Introduction to Plant Physiology Brief history, Scope and applications of plant physiology
2	July	Plant – water relations Physico-chemical properties of water, Membrane structure, permeability and aquaporin Diffusion – Definition, factors affecting diffusion, importance of diffusion in plants Osmosis – Definition, types of solutions – hypotonic, hypertonic and isotonic, endosmosis and exosmosis, concept of osmotic pressure (OP), turgor pressure (TP), wall pressure (WP), Diffusion pressure deficit (DPD), relation between OP, TP and DPD, role of osmosis in plants. Plasmolysis – Definition, mechanism, deplasmolysis, significance of plasmolysis Imbibition – Concept, mechanism and significance
3	July	Absorption of water Role of water in plants, Concept of water potential and capillary water Mechanisms of water absorption, Factors affecting rate of water absorption
4	July & August	Ascent of sap Introduction and definition. Theories of ascent of sap, Vital theories: Jamin – Chame theory and Bose theory, Physical force theories: a) Capillary theory, b) Imbibitional theory, c) Atmospheric pressure theory, Transpiration pull or cohesion-tension theory, evidences and objections , Factors affecting ascent of sap
5	August	Transpiration Definition, Types of transpiration – cuticular, lenticular and stomatal , Structure of stomata, Mechanism of opening and closing of stomata –Steward’s hypothesis, active K ⁺ transport mechanism Factors affecting the rate of transpiration Significance of transpiration, Antitranspirants, Guttation , Exudation
6	August & September	Plant growth and plant growth regulators Introduction , Phases of growth Measurement of growth- Arc auxanometer, Bose crescograph, fresh and dry weight method, Factors affecting growth. Plant Growth Regulators- Introduction and definition, Properties and practical applications of auxins, cytokinins, gibberellins, ethylene and abscisic acid

7	September	Nitrogen metabolism Introduction, Biological nitrogen fixation, Symbiotic nitrogen fixation, nitrogenase enzyme- structure and function , Non-symbiotic nitrogen fixation ,Denitrification, ammonification and nitrification, Reductive amination and transamination Role of nitrogen in plants,
8	September	Seed dormancy and germination Definition and types of seed dormancy, Methods to break seed dormancy, Metabolic changes during seed germination .
9	September	Physiology of flowering Photoperiodism – Concept, definition, short day plants, long day plants and day neutral plants, Photoperiodic induction, phytochrome and flowering , Phytohormones and initiation of flowering , Applications of photoperiodism.
10	September & October	Physiology of flowering Vernalisation – concept and definition, mechanism of vernalisation, applications of vernalisation, devernialization Revision and Question paper discussion

Prof. G. L. Bhor

K.T.S.P.Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGUR

DEPARTMENT OF MATHEMATICS

TEACHING PLAN

ACADEMIC YEAR - 2017-18

Sr. No.	Class	Division	Subject	Name of Teacher
1	F.Y.B.Sc.	01	Algebra & Geometry	Prof. Wayal J.
			Calculus & Differential Equation	Prof. Telang
2	S.Y.B.Sc.	01	Calculus of Multivariable	Prof. Karle S.
			Laplace Transform & Fourier Series	Prof. Wayal J.
			Linear Algebra	Prof. Karle S.
			Numerical Methods &	Prof. Kawade

			its Applications	
3	F.Y.B.Cs.	01	Discrete Mathematics	Prof. Telang
			Algebra & Calculus	Prof. Karle S
4	S.Y.B.Cs.	01	Applied Algebra	Prof. Karle S
			Numerical Analysis	Prof. Telang
			Computational Geometry	Prof. Telang
			Operation Research	Prof. Kawade
5	S.Y.B.B.A.	01	Business Mathematics	Prof. Karle S
6	F.Y.B.Com.	01	Business Mathematics	Prof. Telang
			& Statistics	Prof. Kawade

Class - F.Y.B.Sc.

Subject:- Algebra & Geom

Name:-Prof. Wayal R.M. & Prof. Kawade S.S.

No. of lectures per week - 03

Month	Topic
July	Well Ordering Principle for \mathbb{N} . Principle of Mathematical induction (strong form). Divisibility in \mathbb{Z} : Definition and elementary properties. Division Algorithm, Euclidean Algorithm (Without proof) G.C.D. and L.C.M of integers, Relatively prime integers Definition Prime numbers ,Euclid's lemma, Basic properties of G.C.D., G.C.D of any two integers exists is unique and can be expressed in the form $ax+by$ where $x,y \in \mathbb{Z}$. Equivalence Relations, Equivalence classes, properties of Equivalence classes, Definition of partition, every partition gives an equivalence relation and vice-versa.
August	Definition of Congruence, Congruence as equivalence relation , Residue classes, Partition of \mathbb{Z} , Addition modulo n , Multiplication modulo n . Definition of polynomial, Degree

	polynomial, Algebra of polynomials, Division algorithm (without proof). G.C.D of two polynomials (without proof). Remainder Theorem, Factor Theorem. Relation between the roots and the coefficients of a polynomial, Examples.
September	Echelon form, Definition of rank of a matrix by using echelon form. System of linear equations, Matrix form of system of linear equations, Homogeneous and non-homogeneous systems of linear equations, Gauss Elimination and Gauss Jordan Method. Consistency of a system of linear equations, conditions of consistency (without proof). Eigen values, Eigen vectors, characteristic equation of a matrix of order up to 3×3 . Statement of Cayley Hamilton theorem and its use to find the inverse of a matrix.
October	Eigen values, Eigen vectors, characteristic equation of a matrix of order up to 3×3 , Statement of Cayley Hamilton theorem and its use to find the inverse of a matrix.

TERM - SECOND

November	Change of axes, Translation and rotation. Conic Section: General equation of second degree in x and y. Revision: Equations of the first degree in x, y, z Transformation to the normal form
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December	, determination of plane under given conditions, Equations of the plane through three given points. Systems of planes, two sides of a plane. Length of the perpendicular from a point to a plane, bisectors of angles between two planes. Joint equations of two planes, Angle between planes. Revision: Equations of a straight line, equations of a straight line in terms of its direction cosines and the co-ordinates of a point on it, equations of a line through two points,
January	Symmetrical and unsymmetrical forms of the equations of a straight line. transformation of the equations of a line to the symmetrical form. Angle between a line and a plane. The condition that a given line may lie in a given plane, the condition that two given lines are coplanar. Number of arbitrary constants in the equations of a straight line, sets of conditions which determine a line. The shortest distance between two lines, the length and equations of the line of shortest distance between two straight lines, length of perpendicular from a point to a given line.
February	Definition and equation of the sphere in various forms. Plane section of a sphere, intersection of two spheres. Equation of a circle, sphere through a given circle, intersection

	<p>of a sphere and a line. Equation of a tangent plane. Definition of cone and cylinder. Equation of cone and cylinder with vertex at origin and α, β, γ. The right circular cone, equation of a right circular cone. The right circular cylinder, equation of a right circular cylinder</p>
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Class - F.Y.B.Sc.

Subject:- Calculus and Di

Name:-Prof. Karle S.N.

No. of lectures per week -

Month	Topic
July	Algebraic properties of \mathbb{R} . Order properties of \mathbb{R} , intervals in \mathbb{R} , neighborhoods and deleted neighborhoods of a real number. Bounded subsets of \mathbb{R} . The Completeness Property of \mathbb{R} , denseness of \mathbb{Q} in \mathbb{R} . $\epsilon - \delta$ definition of limit of a function.
August	Basic properties of limits. Continuity of function at a point. Types of discontinuity. Continuous functions on intervals. Properties of continuous functions on closed and bounded interval. (i) Boundedness. (ii) Attains its bounds. (iii) Intermediate value theorem, Definition of derivative of a real valued function at a point, notion of differentiability, geometric interpretation of a derivative of a real valued function at a point.
September	Differentiability of a function over an interval. Differentiability of a function over an interval. Statement of rules of differentiability, chain rule of finding

September	derivative of composite of differentiable functions (without proof), derivative of an inverse function..Mean Value Theorems: Rolle's Theorem, Lagrange's Mean Value Theorem,
October	Cauchy's Mean Value Theorem Indeterminate forms. L'Hospital's rule. Higher order derivatives, examples, Leibniz's Theorem and its applications , Taylor's and Maclaurin's Theorem with Lagrange's form of remainder (without proof),Examples with assuming convergence of series.
November	Partial Fraction and example on it. $\int (ax + b)^{1/n} dx$ where n is a positive integer, $\int \frac{Ax+B}{\sqrt{ax^2+bx+c}} dx$, $\int (Ax + B) \sqrt{ax^2 + bx + c} dx$,
December	Reduction formula $\int \frac{x^n}{\sqrt{ax^2+bx+c}} dx$, $\int \frac{dx}{(x^2 + a^2)^n}$ where n is a positive integer, Introduction to function of two, three variables, homogenous functions, Partial derivatives. Differential equations, General solution of Differential equations.
January	Methods of finding solution of Differential equations of first order and first degree, Variable separable form, Homogeneous Differential equations.Differential equations reducible to homogeneous form. Exact Differential equations. Differential

	equations reducible to exact Differential equations, Integrating factors , Linear Differential equations
February	. Bernoulli's Differential equations. Orthogonal trajectories Kirchhoff's law of electrical circuit (RC & LR Circuit) Equations solvable for p. Equations solvable for x, Equations solvable for y. Equation in Clairaut's form.

Class - S.Y.B.Sc.

Subject:- Multivariable Calculus

Name:-Prof. Wayal R. M.

No. of lectures per week - 2

Month	Topic
July	Functions of several variables, graphs and level curves of a function of two variables. Limit and Continuity in higher dimensions. Definition and examples. Second order partial derivative, the mixed derivative theorem. Partial derivatives of higher order.
August	Differentiability, the increment theorem for functions of two variables (without proof). Chain rules for composite functions. Directional derivatives, gradient vectors. Tangent planes, normal lines and differentials.
September	Extreme values, First derivative test and Second derivative test for local extreme values. Lagrange's multipliers method for finding extreme values of constraint function (One Constraint). Taylors Formula for two variables. . Double Integral over

	rectangles, Fubini's theorem for calculating double integrals (Without proof). Double integrals in polar form.
October	Triple integrals in rectangular coordinates. Triple integral in cylindrical and spherical coordinates. Substitution in multiple integrals, Application area and volumes.

Class - S.Y.B.Sc.

Subject:- Laplace Transform &

Name:-Prof. Wayal R. M.

No. of lectures per week - 04

Month	Topic
July	Definition, Laplace Transform of some elementary functions. Some important properties of Laplace Transform. Laplace Transform of derivatives, Laplace Transform of Integrals.
August	Methods of finding Laplace Transform, Evaluation of Integrals. The Gamma function, Unit step function and Dirac delta function. Definition, Some inverse Laplace Transform. Some important properties of Inverse Laplace Transform.
September	Inverse Laplace Transform of derivative, Inverse Laplace Transform of integrals. Convolution Theorem, Evaluation of Integrals. Solution of Ordinary Differential Equations with constant coefficients
October	Definition and examples of Fourier Series.

Class - S.Y.B.Sc.

Subject:- Linear Algebra

Name:-Prof. Wayal R. M.

No. of lectures per week -

Month	Topic
December	Definition, examples, linear dependence, basis and dimension of a vector subspace, Necessary and sufficient condition for a subspace,
January	vector space as a direct sum of subspaces Inner product, norm as length of a vector, distance between two vectors, orthonormal basis, orthonormal projection
February	Gram Schmidt process of orthogonalization, null space, rank, nullity, Sylvester Inequality Definition, examples, properties of linear transformations, equality of linear transformations, kernel and rank of linear transformations, composite transformations,
March	Inverse of a linear transformation, Matrix of a linear transformation, change of basis, similar matrices

Class - S.Y.B.Sc.

Subject:- Numerical methods & its

Name:-Prof. Kawade S.S.

No. of lectures per week -

Month	Topic
November	Errors and Their Computations. Rounding off numbers to significant digits, to n decimal places. Absolute, relative and percentage errors. A general error formula. Bisection method
December	The method of False position. The iteration method, Aitken's Δ^2 process Newton- Raphson Method. Finite Difference Operators and their relations.Detection of Errors using difference table.Differences of a polynomial, Newton's Interpolation Formulae (Forward and Backward)
January	Lagrange's Interpolation Formula, Divided differences and Newton's General Interpolation formula. 1 Fitting a Straight Line, Nonlinear curve fitting: Power function $y = ax^c$, polynomials of degree 2 and 3,Exponential function $y = ce^{kx}$
February	Numerical Differentiation.Numerical Integration,General quadrature formula.Trapezoidal rule. Simpsons's $\frac{1}{3}$ rd rule. Simpsons's $(\frac{3}{8})^{\text{th}}$ rule.Taylor Series method
March	Euler's method.Modified Euler's methods.Runge - Kutta

	Methods 2nd and 4th order.
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Class - F.Y.B.Cs.

Subject:- Discrete Mathem

Name:-Prof. Telang G.S.

No. of lectures per week -

Month	Topics
July	Revision : Propositional Logic, Predicates and Quantifiers Rules of Inference, Lattices and Boolean Algebra [10 Lect Poset, Hasse diagram. Lattices, Complemented lattice, Bou lattice and Distributive lattice. Boolean Functions : Introduc Boolean Function of degree n,
August	Boolean identities, Definition of Boolean lgebra.Representa of Boolean Functions : Minterm, Maxterm Disjunctive norm form, Conjunctive normal Form. Counting Principles 10 Lectures Cardinality of Set : Cardinality of a finite set. Basics of Counting : The Product Rule, The Sum Rule, The

	Inclusion-Exclusion Principle. The Pigeonhole Principle: Statement, The Generalized Pigeonhole Principle, Its Applications.
September	Generalized Permutations and Combinations : Permutation Combination with Repetitions, Permutations with Indistinguishable Objects, Distributing objects into box. Recurrence Relations 9 Lectures Recurrence Relations : Introduction, Formation. Linear Recurrence Relations with constant coefficients.
October	Homogeneous Solutions. Particular Solutions. Total Solution
	Second Term
November	Definition, Elementary terminologies and results, Graphs as Models. Definition, Elementary terminologies and results, Graphs as Models. Special types of graphs
December	Isomorphism Adjacency and Incidence Matrix of a Graph Subgraphs, induced subgraphs, Vertex deletion, Edge deletion Complement of a graph and self-complementary graphs. Union, Intersection and Product of graphs. Fusion of vertices Connected Graphs. 09 Lectures Walk, Trail, Path, Cycle : Definitions and elementary properties , Connected Graphs :

January	<p>definition and properties. Distance between two vertices, eccentricity, center, radius and diameter of a graph. Isthmus Cutvertex : Definition and properties. Cutset, edge-connectivity, vertex connectivity. Weighted Graph and Dijkstra's Algorithm. Eulerian and Hamiltonian Graphs 05 Lectures Seven Bridges Problem, Eulerian Graph : Definition and Examples, Necessary and Sufficient condition. Fleury's Algorithm.</p>
February	<p>Hamiltonian Graphs : Definition and Examples, Necessary Condition. Introduction of Chinese Postman Problem and Travelling Salesman Problem. Definition, Properties of tree. Center of a tree. Binary Tree : Definition and properties. Tree Traversal : Ordered rooted Tree, Preorder traversal, inorder traversal and postorder traversal, Prefix Notation. Spanning Tree : Definition, Properties, Shortest Spanning Tree Kruskal's Algorithm.</p>
March	<p>Definition, Examples Elementary Terminologies and properties. Special Types of Digraphs. Connectedness of digraphs. Network and Flows : definition and examples.</p>

Class - F.Y.B.Cs.

Subject:- Algebra and Calculus

Name:-Prof. Karle S.N.

No. of lectures per week - 2

First Term

Month	Topics
July	Relations and functions 11 Lectures , Ordered pairs, Cartesian product of Sets. Relations, types of relations, equivalence relations. Partial orderings. Equivalence Class, properties of a partition of a set. Transitive closure and Warshall's Algorithm.
August	Digraphs of relations, matrix representation and composition of relations. Definition of function as relation, types of functions (one-one, onto and bijective) Binary Operations and Groups 16 Lectures Definition of binary operation, examples, properties of binary operations. Definition of Monoid, semigroup, examples. Definition of group and examples, finite and infinite groups, permutation groups, subgroups, Cyclic groups.
September	Divisibility in Integers 16 Lectures Well ordering principle

	First and second Principle of Mathematical Induction, Examples Division Algorithm (without proof) Divisibility its properties, prime numbers. Definition G.C.D and L.C.M. Expressing G.C.D. of two integers as a linear combination of two integers. Euclidean Algorithm (Without proof). Relation between prime integers, Euclid's Lemma and its generalization.
October	Congruence relations and its properties, Residue Classes: Definition, Examples, addition and multiplication modulo n, composition tables Euler's and Fermat's Theorems. (Without proof). Examples
Second Term	
November	Continuity and Properties of continuous functions defined on $[a, b]$ (Without proof) and examples. Differentiability Theorem – Differentiability implies continuity but not conversely
December	Left hand derivative and Right hand derivative. Intermediate value theorem (without proof). Rolle's theorem (with proof and geometric interpretation) Lagrange's Mean Value Theorem (with proof and geometric interpretation)
January	Cauchy's Mean Value Theorem (with proof), Verification of L'Hospital's Rule (without proof) The nth derivatives of standard functions. Leibnitz's Theorem

February	Taylor's and Maclaurin's Theorems with Lagrange's and Cauchy's form of remainders (without proof). Taylor's and Maclaurin's Series. Matrices and System of Linear Equations Lectures Revision: Elementary operations on matrices. Echelon form of matrix System of linear equations: Gauss Elimination Method,
March	Gauss –Jordan Elimination Method, L.U. Decomposition Method Rank of matrix, Row rank, Column rank

Class - S.Y.B.Cs.

Subject:- Applied Algebra

Name:-Prof. Karle S.N.

No. of lectures per week - 04

Month	Topic
July	Real vector space ,subspace, linear independence ,basis & dimension
August	row space, column space & null space,rank & nullity,,Eigen value & eigen vectors, Diagonalization , quadratic form
September	general linear transformation ,kernel & range,inverse linear transformation,,Matrix of general linear transformation,Cyclic group,normal subgroup,Product "ient of group,Coding binary information &erroe detection, Decoding & error correction
October	public key cryptology

Class - S.Y.B.Cs.

Subject:- Numerical Analysis

Name:-Prof. Telang G.S.

No. of lectures per week - 2

Month	Topics
July	Accuracy of Numbers , Errors , Algebraic and Transcendental Equation , False Position Method , Newton-Raphson Method
August	Differences , Forward Differences , Backward Differences , Central Differences , Other Differences , Properties of Operators , Relation between Operators , Fundamental Theorem on Differences of polynomial, Estimation of Error by Differences Table , Technique to determine the Missing Term ,Interpolation with Equal Interval , Newton's Gregory Formula for Forward Interpolation ,Newton's Gregory Formula for Backward Interpolation, Central Difference Formulae
September	Gauss Forward Difference Formula , Gauss Backward Difference Formula ,Bessel's Interpolation Formula ,Lagrange's Interpolation Formula , Error in Lagrange's Interpolation

	Formula , Divided Difference , Newton's Divided Difference Formula , Hermite's Interpolation Formula , Numerical Integration , General Quadrature Formula , Trapezoidal Rule Simpson's one-Third Rule , Simpson's Three-Eight Rule Euler-Maclaurin's Formula
October	Euler's Method , Euler's Modified Method , Runge-Kutta Method , Milne's Predictor-Corrector Method

Class - S.Y.B.Cs.

Subject:- Computational C

Name:-Prof. Telang G.S.

No. of lectures per week -

Month	Topics
November	Two dimensional transformations ,Introduction , Representation of points Transformations and matrices , Transformation of points , Transformation of straight lines
December	Midpoint transformation , Transformation of parallel lines Transformation of intersecting lines , Transformation: rotations, reflections, scaling, shearing , Combined transformations. Transformation of a unit square, Solid body transformations Transformation and homogeneous coordinates. Translation . Rotation about an arbitrary point
January	Reflection through an arbitrary line , Projection – a geometrical interpretation of homogeneous coordinates, Overall Scaling Point at infinity, Three dimensional transformations , Introduction, Three dimensional – Scaling, shearing, rotation, reflection, translation. Multiple transformations , Rotation about an axis – an axis parallel to coordinate axes, an arbitrary axis in space

	Reflection through – coordinate planes, planes parallel to coordinate planes, arbitrary planes ,
February	Affine and perspective transformations, Orthographic projections , Axonometric projections , Oblique projections , Single point perspective transformations Vanishing points , Plane Curves ,Introduction. Curve representation ,Non – parametric curves , Parametric curves. Parametric representation of an ellipse and generation of ellipse. Parametric representation of a parabola and generation of parabolic , segment ,
March	Parametric representation of a hyperbola and generation of hyperbolic, segment , Bezier Curves – Introduction, definition, properties, curve fitting (up to $n = 3$), equation of the curve in matrix form (up to $n = 3$)

Class - S.Y.B.Cs.

Subject:- Operational Res

Name:-Prof. Kawade S.S.

No. of lectures per week -

Month	Topic
November	Graphical method, Two-Variable LP Model
December	Graphical LP Solution, Linear Programming Applications
January	LP Model in Equation Form , Transition from Graphical to Algebraic Solution ,The Simplex Method , Artificial Start Solution , Special Cases in Simplex Method
February	Dual problem , Definition of the dual problem , Primal d relationships ,Examples, Transportation problem ,Definition the Transportation problem
March	The Transportation Algorithm ,The Assignment Model Optimal solution of two person zero sum games , Solution mixed strategy games

Class - S.Y.B.B. A.

Subject:- Business Mathematics

Name:-Prof. Karle S.N.

No. of lectures per week -

Month	Topics
July	Ratio- Definition, Continued Ratio, Inverse Ratio, Proportion, Continued Proportion, Direct, Proportion , Inverse Proportion, Variation, Inverse Variation, Joint .Variation, Percentage- Meaning and Computations of Percentages , Simple Interest, Compound interest (reducing balance & Flat Interest rate on interest), Equated Monthly Installments(EMI), Problems
August	Terms and Formulae, Trade discount, Cash discount, Problems involving cost price, Selling Price, Trade discount and Cash Discount. Introduction to Commission and brokerage, Problems on Commission and brokerage Statement and meaning of Terms, methods of finding initial basic feasible solution by North West corner Rule, Matrix Minimum method and Vogel's approximation method. Simple numerical problems.
September	Multivariable data, Definition of a Matrix, Types of Matrices, Algebra of Matrices, Determinants, Ad joint of a Matrix, Inverse of a Matrix via ad joint Matrix, Homogeneous System of Linear equations, Condition for Uniqueness for the homogeneous

	system, Solution of Non homogeneous System of Linear equations Condition for existence and uniqueness of solution Solution using inverse of the coefficient matrix .
October	Problems Meaning of LPP, Formulation of LPP, and solution by graphical methods.

Class - F.Y.B.Com.

Subject:- Business Mathematics

Name:-Prof. Telang G.S. / Prof. Kawade S.S.

No. of lectures per week - 04

First Term

Month	Topics
July	Natural no & integers, H.C.F & M.C.F,, fraction, Laws of indices , ratio & percentage, proportion
August	simple interest , compound interest , EMI , examples Concept of shares ,face value, market value , net asset value Equity shares and preference shares , Dividend , Bonus ha Examples
September	definition & concept of statistics, scope of statistics, conce population &sample , sampling method , variables, classification of data , frequency distribution
October	Graph , mean ,median & mode , examples

Second Term	
November	cost price, market, selling price , trade
December	cash discount , commission & brokerage, examples Defin formulation of linear programming problem, graphical meth example
January	concept of dispersion ,measures of dispersion ,measures of relative dispersion ,examples
February	Data, scatter diagram ,Karl pearson's coefficient correlation
March	rank correlation, regression ,examples

K.T.S.P Mandal's
Hutatma Rajguru Mahavidyalaya
Rajgurunagr
Tal- Khed Dist- Pune 410 505
Department of ZOOLOGY
(Academic year 2018-19)

Time	MON	TUE	WED	THU	FRI	SAT
8:20 To 9:10 AM	TY (AAI) SY (DNB/SBP)	TY (AAI/SBP) SY (DNB)	TY (DNB) SY (DLT)	TY (DNB) SY (BAS)	TY (DLT) SY (BAS)	TY (DLT) SY (SSP)
9:25 To 10:10 AM	TY (DNB) FY (SMD)	TY (DLT) FY (DNB)	TY (AAI) FY (DNB)	TY (DLT) FY (SMD)	TY (SSP) FY (SMD)	TY (SSP) FY (DNB)
10:10 To 11:00 AM	TY (SMD)	TY (SSP)	TY (SMD)	TY (BAS)	TY (DNB)	TY (BAS)
11:00 To 11:50 AM	TY (SSP)	TY (BAS)	TY (BAS) SY (SSP)	TY (SMD) SY (DLT)	TY (AAI)	TY (SMD)
12:45To 3:45 AM	FY Pract. (DLT & BAS) TY Pract. (SSP & SMD)	FY Pract. (DLT & BAS) TY Pract. (SSP & SMD)	FY Pract. (DLT & BAS) TY Pract. (SSP & SMD)	SY Pract. (DNB & SBP)	SY Pract. (DNB & SBP)	SY Pract. (DNB & SBP)

HUTATMA RAJGURU MAHAVIDYALAYA

RAJGURUNAGR

Department of ZOOLOGY

Academic Year 2018- 2019 Workload

Sr. no.	Class	Theory	Practicals	Total
1	F.Y.Bsc (Grantable)	6 Lectures	6Batches 6x4= 24 (Grant & Non Grant)	30
2	S.Y.Bsc (Grantable)	8 Lectures	6Batches 6x4= 24 (Grant & Non Grant)	32
3	T.Y.Bsc (Non Grant)	6 Papers x 4 Lectures= 24	3 Batches 9 Practical Papers x 4= 36	50
			TOTAL	112

As per the present student strength distribution of workload distribution is followed:

Sr. No.	Name	Workload
1	Prin. Dr. S.B. Patil (Head of Dept.)	4 Lectures
2	Prof. D. N. Birkhade	20
3	Dr.. Patil. S. S	22
4	Mr. D L. Takalakar	22
5	Ms. Bhujbal A.S	22
6	Ms. Duraphe. S.M	22
7	Ms. Indais.A.A	04
8	Total	112

Dr. S. B. Patil

Head of Dept. Zoology

K.T.S.P. Mandal's Hutatma Rajguru Mahavidyalaya

Rajgurunagar, Tal. Khed Dist. Pune

Department of Chemistry Annual Teaching Plan 2017-18

Sr. No.	Class	Subject Name	Total Divisions	Subject Teacher	Page No.
1	F.Y.B.Sc	1. Physical & Inorganic Chemistry 2. Organic & Inorganic Chemistry 3. Practical Paper	2	1.Prof. N.D. Dongare 2.Prof.Khangate.D.M 2. Prof. M.K. Hase 3. Prof. N.V Gundal. 4. Prof. S.G.Muthe 5. Prof. S.N. Mande 6.Prof.V.M.Shelar	2 To 10
2	S.Y.B.Sc.	1. Physical & Analytical Chemistry 2. Organic & Inorganic Chemistry 3. Practical Paper	2	1. Dr. S.B. Suryawanshi 2. Prof. S.S. Kolekar 3. Prof. Y.S Walunj. 4. Prof. M.K.Hase 5. Prof. S.N. Mande 6. Prof. N.V. Gundal	11 To 19
3	T.Y.BSc.	1. Physical Chemistry 2. Inorganic Chemistry 3. Organic Chemistry 4. Analytical Chemistry 5. Industrial Chemistry 6. Agricultural & Dairy Chemistry 7. Physical Practical 8.Inorganic Practical 9. Organic Practical	1	1. Dr. S.B. Suryawanshi 2. Prof. S.S. Kolekar 3. Dr. P.S. Kulkarni 4. Prof. Y.S. Walunj 5. Prof. N. D. Dongare 6. Prof. M.K.Hase 7. Prof. S.N. Mande	20 To 51

K.T.S.P. MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
F.Y.B.Sc. Physical and Inorganic chemistry (Paper I)

Teaching plan 2017-18 (SEM-I) No. Of Lectures per week-03

Name of Teacher: Prof. Dongare N.D., Prof. Kolhe M.P., Prof.S.G.Muthe

Month	Chapter	Topic Name	No. of lectures
July 2017	State of Matter	Physical Chemistry Introduction: State of matter & their properties. Gaseous state: Significance of ideal & kinetic gas equation, real gases compressibility factor, Vander wall equation of state, isotherms of CO ₂ critical constant, correlation between critical constant and Vander Waal's constant. Liquid state: properties of liquid, comparison between gaseous and solid state. Home Assignment and Internal Test	08L
August 2017	Chemical mathematics	Function & variables: variables as function, variables used in chemistry. Derivative: Rules of differentiation, ex. on Derivative of algebraic, logarithmic & exponential functions, partial differentiation. Condition for maxima & minima. Integration: Rules of integration, integration definite & indefinite, problems related to chemistry. Graph: Plotting graphs of linear, exponential, & logarithmic functions and their characteristics, sketching of s & p orbital's. concentration for example strength, normality, etc. .Home Assignment and Internal Test	08L

September 2017	Surface Tention	Colloids Preparation, purification, Optical properties, Tyndall effect, shape and size, stability, solvation, interaction between, colloids, solution, emulsions and gels. Catalysis Catalyst and catalysis, positive and negative catalysis, Type of catalysis, Characteristics of catalytic reactions, promoters, Catalytic poisoning , Theories of catalysis, Active centre on catalyst surface, Adsorption theory and catalytic activity, Acid – Base catalysis, Enzyme catalysis, Mechanism of enzyme catalysis, characteristics of enzyme catalysis, application of catalysis in industries. Autocatalysis, negative catalysis, Activation energy and catalysis.	
Sept/Oct 2017	Mole concept	Inorganic Chemistry Mole concept-Determination of mol, Weight by grams molecular volume relationship, problems based on mole concept. Methods of expressing Home Assignment and Internal Test	12 L
Oct 2017	Oxidation And Reduction	Defination of oxidation and reduction ,Rules for calculate oxidation state ,problem ,balance reaction by different method Home Assignment	8L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune
Teaching Plan 2017-18 Sem.-I Class: F. Y. B. Sc. Chemistry,
Name of Paper: Organic & Inorganic Chemistry (Paper II)
No. of Lectures allotted per week: 03
Name of Teacher: Prof. Dongare N.D., Prof. Khangate.D.M, Prof.S.N.Mande

Month	Name of Chapter	Topic Covered	Lectures
July-2017	Chemical bonding, structure & reactivity of organic molecules	Covalent bond, Hybridization in organic molecules (sp ³ , sp ² , sp), bond length, bond angles, bond energies, Inter & Intra molecular forces & their effects on physical properties. Structural effects like inductive, Resonance, Hyper conjugation, steric effect, Hydrogen bounding. Application of Structural effect. Assignment 1 Surprise test	14 L
Aug-2017	Chemistry of Hydrocarbon Alkenes, dyne & alkynes	Introduction , Nomenclature, Physical properties, General methods of preparation, chemical reaction of – Alkanes. Assignment 2 Introduction , Nomenclature, Physical properties, General methods of preparation, chemical reaction of – Alkenes, alkynes & dienes.	10L
Sept-2017	Homocyclic & polycyclic aromatic hydrocarbons	Introduction to homocyclic & polycyclic aromatic hydrocarbons (benzene, naphthalene, anthracene), Huckel's rule of aromaticity. Assignment -3	8L
Oct-17	Chemistry of S-block elements	Recapitulation of periodic table, special position of hydrogen in the long form of the periodic table, electronic configuration.	8L

K.T.S.P. MANDAL'S

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR

F.Y.B.SC.: Physical chemistry & Inorganic Chemistry (Paper I)

Teaching plan 2017-18 (Sem-II) NO. Of Lectures per week-03

Name of Lecturer - Prof. Dongare N.D., Prof. Kolhe M.P., Prof.Muthe.S.G.

Month	Chapter	Topic Name	No. of lecture
Dec. 2017	Atomic Structure	Physical Chemistry Historical Development, Daltons atomic theory, Limitation of Daltons atomic theory, Electron, its discovery and properties. e/m ratio of electron by Thomson's method Charge on electron by Millikens oil drop method, Proton- its discovery and properties, 'Thomson's Atomic model and its drawbacks. Rutherford's alpha particles scattering experiments, Rutherford's atomic model and its drawbacks. Prouty's hypothesis, Moseley experiment and its importance. The Neutron – its discovery and properties, atomic spectra. Ritz – combination principle, Bohr's model of hydrogen atom, postulates, derivation for its radius and energy. Application of Bohr's theory, spectra and ionization potential of hydrogen, Limitations of Bohr's theory, spectra and ionization potential of hydrogen, Limitations of Bohr's theory, Quantum number, Pauling's Exclusion principle, Hund's principles of maximum multiplicity and Aufbau's principle. Home Assignment	8L
Jan/Feb 2018	Chemical Thermodynamics	Limitation of first law/ Necessity to study second law of thermodynamics. Cyclic process such as Carnot's cycle.Operation of Carnot's cycle to determine thermodynamic efficiency. Statement of second law based on thermodynamic efficiency.Entropy of a system.Mathematical definition of entropy (i.e. $S = q_{rev}/T$) Entropy	8L

		<p>changes for system and surroundings for reversible and irreversible process.</p> <p>Entropy changes for an ideal gas in isothermal, isobaric and isochoric process. Entropy changes in chemical reaction.</p> <p>Mathematical preparation for physical Chemistry By F. Daniel, Mc. Graw Hill publication.</p> <p>University General Chemistry. By C.N. R. Rao Mc. Millan Publication.</p> <p>Principles of Physical Chemistry. By Maron and Pruton 4th Ed. Oxford and IBH publication. Physical Chemistry. By G.M. Barrow.</p> <p>Home Assignment</p>	
Feb-18	Concept of Hybridisation	Definition, need of hybridisation, steps involved in hybridisation, explanation of covalency of atom in the moles based on hybridisation, types of hybridisation involving s, p & d orbital's. Applications of hybridisation geometries of different molecules	5L
Mar -18	VSEPR Theory	Assumptions, need of theory, application of theory of explain geometry of irregular molecules. i) Cl_2O ii) ClF_3 iii) TeCl_4 iv) XeOF_4 v) XeO_3 vi) BrF_5	4L
Mar -18	Chemical bonding and structure	i) Attainment of stable configuration. ii) types of bonds a) ionic, b) covalent c) Coordinate d) metallic (Ref.1) iii) Types of overlap, formulation of σ and π bonds S – S overlap, P-P overlap, p-d overlap with suitable examples (Ref.1) iv) Theories of bonding, Valence bond theory a) Heitler London theory and b) Pauling Slater theory	4 L

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune

Teaching Plan 2017-18 Class: F. Y. B. Sc. Chemistry, Sem.-II

Name of Paper: Organic & Inorganic Chemistry (Paper II)

No. of Lectures allotted per week: 03

Name of Teacher: Prof. Dongare N.D., Prof. Gundal N. V.

Month	Name of Chapter	Topic Covered	Lectures
Nov-17	Chemistry of functional groups	Alkyl halide- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis of alkyl halides. Alcohols & ethers :- Introduction, physical properties, Reactions of alcohols, industrial sources of ethyl alcohol, proof, spirit, denatured spirit, absolute alcohol, analysis of alcohols. <ul style="list-style-type: none">• Assignment -1	10L
Dec-17	Stereochemistry	Concept of Stereochemistry, Types of isomers, conformational isomerism in alkanes, Geometrical isomerism :- Definition, E/Z nomenclature of geometrical isomers, Optical isomerism:- Isomer no, chirality, specific rotation, enantiomerism, R/S nomenclature. <ul style="list-style-type: none">• Assignment-2	10L

Jan-18	functional groups	<p>Aldehydes & ketones:- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis of aldehydes & ketones.</p> <p>Carboxylic acid, Amines, Phenols:- Introduction, classification, Nomenclature, physical properties, preparation, reactions, analysis.</p> <ul style="list-style-type: none"> • Assignment-2 • Assignment-3 <p>Internal-1</p>	12L
Feb-18	Chemistry of P-block element	<p>Position of elements in periodic Table, Electronic configuration, Periodic trends in Properties viz. size of atom, ion, oxidation state, ionization potential, & reactivity.</p> <p>Structure & Properties of</p> <ol style="list-style-type: none"> Borates Halides of Aluminum Allotropes of carbon classification of silicates <p>Inter halogen compounds</p>	10L
Mar-18		<p>Question paper solving.</p> <p>Guidance to the student regarding examination.</p> <ul style="list-style-type: none"> • Internal-2 	03L

K.T.S.P.Mandal'S Hutatma Rajguru Mahavidyala

Rajgurunagar, Tal. Khed Dist. Pune

Teaching Plan Year 2017-18

Class: F. Y. B. Sc. Chemistry, Term: Ist and IInd

Name of Paper: Chemistry practical No. of Lectures allotted per Batch: 04

Sl. No.	Date	Name of Practicals
1.	July	Sketch the polar plots of s and p orbitals.
2.	Aug	Plot the graph of following functions using excel a) exponential function b) logarithmic function c) linear functions
3.	Aug	To determine the gas constant R in different units by eudiometer method
4.	Aug	To determine relative viscosity of given organic liquids by viscometer.
5.	Aug	To determine ΔH and ΔS for the following chemical reactions $\text{Zn(s)} + \text{CuSO}_4\text{(aq)} \rightarrow \text{Cu(s)} + \text{ZnSO}_4\text{(aq)}$ ii) $3\text{Mg(s)} + 2\text{FeCl}_3\text{(aq)} \rightarrow 2\text{Fe(s)} + 3\text{MgCl}_2\text{(aq)}$
6.	Sep	Investigate the adsorption of acetic acid by activated charcoal and test the validity of Freundlich /Langmuir adsorption isotherm.
7.	Sep	Determination of hardness of water from a given sample of water by EDTA method.
8.	Sep	Analysis of alkali mixture by volumetric method
9.	Sep	Mixture-1 (water soluble)
10.	Dec	Mixture-2 (water insoluble)
11.	Dec	Mixture-3 (water insoluble)
12.	Dec	To standardize NaOH solution & hence find the strength of given HCl solution.
13.	Dec	Estimation of % purity of a given sample of sodium chloride
14.	Jan	Techniques Crystallization with M.P. and % yield of purified compound
15.	Jan	Sublimation with M.P. and % yield of purified compound
16.	Jan	To determine amount of aspirin in APC tablets
17.	Jan	Organic qualitative analysis of single organic compound Compound 1
18.	Feb	Compound2

19.	Feb	Compound 3
20.	Feb	Compound 4
21.	Feb	Internal examination

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune

Teaching Plan - 2017-18 Class: S. Y. B. Sc. Sem.-I

Name of Paper: Physical & Analytical Chemistry (Paper I)

No. of Lectures allotted per week: 04

Name of Teacher : . Dr. S.B. Suryawanshi Prof. Walunj Y.S. Prof. HaseM.K.

Month	Chapter	Topic Coverd	Lectur es
July- 17	Elementary chemical Kinetics	Introduction to chemical Kinetics, molecularity & Order of reaction, reaction rates,rate laws, rate constant & its significance.Integrated rate law expression & its characteristics –first order, second order(single reactant,two reactant involved),examples of 1 st &2 nd order reaction,pseudo molecular reactions,factors affecting rate of reaction,measurement of rate of reaction,numericals. Assignment No-1	10L
July- 17	Photochem istry	Introduction,thermal reactions & photochemical reactions, law of photochemistry,quantum yield, measurement of quantum yield,types of photochemical reactions- photosynthesis, photolysis, photocatalysis, photosensitization,photo-physical processes- fiuorescence,phosphorescence,quenching,chemilumini scence,numerical. Assignment No-2	10L
Aug - 17	Distributio n Law	Nernst distribution Law, statement & thermodynamic proof of Nernst distribution Law, association & dissociation of solute in solvent, application of distribution Law,Numericals Assignment No-3 Internal Test No-1	4L
Aug- 17	Introductio n to Analytical Chemistry	Introduction,chemical analysis,application of chemical analysis,sampling ,types of analysis, common techniques, instrumental methods ,other techniques, factors affecting on choice of method	3L

Sept-17	Errors in Quantitative Analysis	Introduction, Error, accuracy, precision, methods of expressing accuracy & precision, classification of errors, significant figures & computation, distribution of random errors, mean & standard deviations, reliability of results, Numericals	5L
Sept-17	Inorganic Qualitative Analysis	Basic principle, common ion effect, solubility, solubility product, preparation of original solution, classification of basic radicals in groups, separation of basic radicals, removal of interfering anions (phosphate & borate), detection of acidic radicals	8L
Oct-17	Analysis of Organic Compounds (Qualitative & Quantitative)	<p>(A) Qualitative: Types of organic compounds, characteristic tests & classifications, reaction of different functional groups, analysis of binary mixtures.</p> <p>(B) Quantitative:</p> <p>i) Analysis: estimation of C, H, (O) by combustion tube, detection of nitrogen, sulphur, halogen & phosphate by Lassaigne's test.</p> <p>ii) Estimation of nitrogen by Duma's, Kjeldahl's method, estimation of halogen, Sulphur & phosphate by various methods.</p> <p>iii) Determination of empirical & molecular formula, Numerical problems.</p>	8L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY S.Y.B.Sc. Teaching plan 2017-2018

Name of Paper- Organic and Inorganic chemistry (Paper II)

No. of Lectures allotted per week-04 SEM – I

Name of teacher- Prof. Kolekar S.S., Prof. Mande S.N., Prof.D.M.Khangate

Month	Chapter	Topic	L
July 2017	Stereoisomerism	Introduction to optical isomerism: Chirality, optical activity and polarimetry, enantiomers, absolute configuration, R/S system nomenclature with wedge and Fischer representation of two chiral centres, erythro, threo, meso-diastereomers with R/S configuration. Stereoisomerism Baeyer's strain theory, heat of combustion, cycloalkanes, factors affecting the stability of conformation, Conformation of cyclohexane - equatorial and axial bonds, Monosubstituted cyclohexane stability with -CH ₃ and -C(CH ₃) ₃ substitutes. Structures of geometrical isomers of dimethylcyclohexane only	12
Aug 2017	Organic reaction Mechanism	Introduction, types of reagents—electrophile, nucleophile and free radical. Types of organic reactions: Addition, Elimination (elimination and Hofmann elimination), substitution (aliphatic electrophilic and nucleophilic, aromatic electrophilic) and rearrangement. Mechanism: (i) Aldol condensation (ii) Markovnikov and anti-Markovnikov addition reaction (iii) Saytzeff and Hoffmann elimination (iv) S _N and S _N reactions (v) Hofmann rearrangement	12
Aug 2017	General Principles of Metallurgy	Introduction, occurrence of metals, ores and minerals, types of ores, operations involved in metallurgy, crushing, connotation, various methods of concentration such as hand picking, gravity separation, magnetic separation. Froth flotation, Calcinations, Roasting etc. Reduction, various methods of reduction such as smelting, Aluminothermic process and	06

		electrolytic reduction, Refining of metals, various methods of refining such as poling, liquation, electrolytic and vapour phase refining (Van Arkel Process). Aims: To study principles and process of metallurgy	
Sept 2017	Metallurgy of Aluminium (Electrometallurgy):	Occurrence, Physiochemical principles, Extraction of Aluminium, Purification of bauxite by Baeyer's process, Electrolysis of alumina, application of aluminum and its alloys. Aims: To study metallurgy of Aluminium. Objectives: A student should be able - To know physico-chemical principles involved in electrometallurgy. To understand electrolysis of alumina and its refining. To explain the uses of Aluminum and its alloys.	04
Sept 2017	Metallurgy of Iron and Steel (Pyrometallurgy)	Occurrence, concentration, calcination, smelting physio-chemical principles, reactions in the blast furnace, wrought iron, manufacture of steel by Bessemer and L.D. process, its composition and applications.	08
Oct. 2017	Corrosion and Passivity	Definition of corrosion, Types of corrosion, Atmospheric, Immersed, Mechanism of electrochemical corrosion, Factors affecting corrosion - position of metal in E. C. S., purity effect of moisture, effect of oxygen, pH, physical state of metal, methods of protection of metal from corrosion- alloy formation, Passivity : Definition, Theories of passivity - (i) Oxide film theory (ii) Gaseous film theory (iii) Physical film theory, Valence theory, Catalytic theory, Allotropic theory, Electrochemical passivity.	06

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune

Teaching Plan - 2017-18 Class: S. Y. B. Sc. (A) Sem.-II

Name of Paper: Physical & Analytical Chemistry (Paper I)

No. of Lectures allotted per week: 04

Name of Teacher: Dr. S.B. Suryawanshi Prof. Walunj Y.S. Prof. HaseM.K.

Month	Chapter	Topic Coverd	Lectures
Nov-17	Free Energy and Equilibrium	Physical chemistry – Introduction, Helmholtz free energy, variation of Helmholtz free energy with volume and temperature, Helmholtz free change energy for chemical reaction, Gibb's free energy, Variation of Gibb's free energy with pressure and temperature, Gibb's free energy change for chemical reaction, Free energy change for physical transitions, Free energy change for an ideal gas; standard free energy change, Gibb's-Helmholtz equation, Properties and significance of Gibb's free change, Van't Hoff reaction isotherm, thermodynamic equilibrium constants, Relation between K_p and K_c for gaseous reactions, variation of equilibrium constant with temperature, Criteria for chemical equilibrium, Physical equilibrium, Clapeyron equation, Clausius-Clapeyron equation, Application of Clausius-Clapeyron equation, numericals. Assignment No-1	12L
Dec-17	Solution of Liquids in Liquids	Types of solutions, Ideal solutions, Raoult's law, ideal and non ideal solutions, Henry's law, Application of Henry's law with example CS ₂ in acetone, problems based on Raoult's law and Henry's law, vapor pressure-composition diagram of ideal and non ideal solution, temperature composition diagram of miscible binary solutions, distillation from temperature-composition diagram, Azeotropes, Partially immiscible liquids.	12L

		Assignment No-2	
Jan-18	Introduction to volumetric analysis	<p>Analytical Chemistry</p> <p>Introduction, methods of expressing concentrations, primary & secondary standard solutions, Apparatus used & their calibration; burettes microburettes, volumetric pipettes, graduated pipettes, volumetric flask, methods of calibration, instrumental & non-instrumental analysis-principles & types</p>	6L
Feb-18	Non Instrumental volumetric analysis	<p>Indicators –theory of indicators, acid base indicators, mixed & universal indicators</p> <p>Acid –Base titrations: Strong acid- Strong base, Weak acid-Strong base, Weak acid-weak base titration, Displacement titrations, polybasic acid titration, (Discuss titration with respect to neutralization & equivalence point determination & limitations)</p> <p>Redox titrations: Principle of redox titration, detection of equivalence point using suitable indicators.</p> <p>Complexometric titrations: Principle, EDTA titrations, choice of indicators, Iodometry & Iodimetry; principle, detection of end point, difference between Iodometry & Iodimetry, Standardisation of sodium thiosulphate solution using potassium dichromate & iodine method, Applications-estimation of Cl_2</p> <p>Internal Test</p>	18 L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY (S.Y.B.Sc.)

Teaching plan 2017-2018 Sem– II

Name of Paper - Organic and Inorganic chemistry (Paper II)

No. of Lectures allotted per week-04

Name of teacher- Prof. S.S. Kolekar Prof. Mande S.N.Prof.D.M.Khangate.

Month	Chapter	Topic	L
NOV 2017	Reagents in Organic Synthesis	Catalytic hydrogenation including liquid phase hydrogenation, Birch reduction, NaBH_4 , LiAlH_4 , Sn/HCl , Oxidation reagents: KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$, Jones reagent, PCC, Per acids, OsO_4	08
NOV, DEC 2017	Chemistry of heterocyclic compounds with one hetero atom.	Definition and classification of heterocyclic compounds, nomenclature and aromatic character. Synthesis of Pyrrole, Furan, Thiophene, Pyridine and their reactions: Nitration, Sulphonation, Acylation and Catalytical reduction. Structure and synthesis of quinoline and Isoquinoline.	06
DEC 2017 JAN 2018	Introduction of Bio-molecules	Carbohydrates: Definition, classification, reaction of monosaccharide (glucose)- oxidation, reduction, osazone and ester formation, isomerization, Killiani-Fischer synthesis and Ruff degradation, Configuration of D/L configuration of (+) Glucose, Fischer-Haworth and chair formulae, Brief account of disaccharides: Sucrose, cellobiose, maltose and lactose. Polysaccharides: Starch, cellulose and glycogen. Amino acids: Fischer projection, relative configuration, classification, structures and reactions of amino acids, Properties and chemical reactions with amino and carboxylic group. Proteins:	10

		Formation of Peptide linkage, α -helical conformation, β -plated structure, primary, secondary, tertiary and quaternary structure of proteins.	
JAN 2018	Chemistry of d-block elements	Position of d-block in periodic table, electronic configuration, trends in properties of these elements w.r.t.(a) size of atoms & ions (b) reactivity (c) catalytic activity (d) oxidation state (e) complex formation ability (f) colour (g) magnetic properties (h) non-stoichiometry (i) density, melting & boiling points	06
FEB 2018	Organometallic Chemistry	Definition of Organometallic compounds and Organometallic chemistry, CO as a π -acid donor ligand, binary metal carbonyls, methods of synthesis; (a) Direct reaction (b) Reductive carbonylation (c) Photolysis and thermolysis. Molecular and electronic structures (18 electron rule) of metal carbonyls. Homogenous catalysis- Hydroformylation (Oxo Process) and Wacker Process.	06
FEB. 2018	Acids, Bases and Solvents	Definition of acids and bases, Arrhenius theory, Lowry-Bronsted theory, Lewis concept, Lux-Flood theory, strength of acids and bases, trends in the strength of hydracids and oxyacids, Properties of solvents, M.P-B.P range, dipole moment, dielectric constant, Lewis acid-base character and types of solvents	06
Mar. 2018	Chemical Toxicology	Toxic chemicals in the environment, Impact of toxic chemistry on enzymes. Biochemical effect of Arsenic, Cadmium, Lead, Mercury, Biological methylation.	06

**K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY (S.Y.B.Sc.)**

Teaching Plan Year 2017-18

Class: S. Y. B. Sc. Chemistry, Term: Ist and IInd

Name of Paper: Chemistry practical No. of Lectures allotted per batch: 04

Sr.No.	Date	Name of Practicals
1.	July	To determine critical solution temperature of phenol water system
2.	Aug	Determination of solubility of benzoic acid at different temperature and to determine ΔH of dissociation process.
3.	Aug	To study neutralization of acid (HCl) base (NaOH) and CH_3COOH by NaOH and H_2SO_4 by NaOH.
4.	Aug	To determine the rate constant (or to study kinetic s) of acid catalyzed ester hydrolysis.
5.	Aug	To determine the rate constant of base catalyzed ester hydrolysis.
6.	Sep	Inorganic Qualitative Analysis Mixture No. 1
7.	Sep	Mixture No. 2
8.	Sep	Mixture No. 3
9.	Sep	Mixture No. 4
10.	Dec	Mixture No. 5
11.	Dec	Organic qualitative analysis of Binary Mixtures Mixture No. 1
12.	Dec	Mixture No. 2
13.	Dec	Mixture No. 3
14.	Jan	Mixture No. 4
15.	Jan	Organic Preparation Pthalic anhydride to pthalamide
16.	Jan	Glucose to osazone
17.	Jan	Estimation of sodium carbonate content of washing soda
18.	Feb	a) Preparation of standard 0.05 N oxalic acid solution and standardization of approx. 0.05N KMnO_4 solution. b) Determination of the strength of given H_2O_2 solution with standard 0.05 N KMnO_4 solution.
19.	Feb	Estimation of Aspirin from a given tablet and find errors in quantitative analysis
20.	Feb	Iodometric estimation of copper
21.	Feb	Internal Examination

K.T.S.P.MANDAL'S

**HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY**

Teaching Plan Year 2017-18

Class: T. Y. B. Sc. Chemistry, Sem.-III

Name of Paper: Physial Chemistry No. of Lectures allotted per week:04

Name of Teacher: Prof. Walunj Y.S.

Month	Name of Chapter	Topic Covered	Lect ures
July-2017	Chemical Kinetics	Recapitulation of Chemical Kinetics, Third order reaction, Derivation of integrated rate law for third order reaction with equal initial concentration, characteristics of third order reaction, examples of third order reaction, Methods to determine order of reaction using Integrated rate equation method, Graphical method, Half-life method, Differential method. Effect of temperature on reaction rate, Arrhenius equation, related numerical.	10 L
Aug-2017	Electrolytic Conductance	Recapitulation of Electrolytic conductance, Specific and equivalent conductance, Variation of equivalent conductance with concentration, Kohlrausch's law and its applications to determine a. Equivalent conductance at infinite dilution of a weak electrolyte, b. The ionic product of water, c. Solubility of sparingly soluble salts, Migration of ions and ionic mobilities, absolute velocity of ions, Transport number determination by Hittorf's method and moving boundary method, Relation between ionic mobility, ionic conductance and transport number, Ionic theory of conductance, Debye-Huckel –Onsager equation and its validity, Activity in solution, fugacity and activity coefficient of strong electrolyte.	14L

Sept-2017	Investigations of Molecular structure. Phase Rule	Molar refraction, Electrical polarization of molecules, Permanent dipole moment, Determination of dipole moment, Molecular spectra - Rotational, vibrational and Raman spectra	16L 04L
Oct-2017	Phase Rule	Definitions, Gibb's phase rule, one component system (moderate pressure only) for sulphur and water system, two component system for silver-lead and zinc-cadmium.	04L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY
Teaching Plan Year 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-III
Name of Paper: Inorganic Chemistry No. of Lectures allotted per
Name of Teacher : Prof. Dongare N.D. week:04

Month	Name of Chapter	Topic Covered	No. of Lect.
July-17	Molecular Orbital Theory	Limitations of VBT, Need of MOT, Rules of LCAO combination, Different types of combination of Atomic orbital(AO's): S-S, S-P, P-P and d-d, Non-bonding combination orbitals(formation of NBMO), M.O. Energy level diagram, bond order, Energy (β) and magnetic behavior for molecules or ions: H ₂ , H ₂ ⁺ , He ₂ ⁺ , Li ₂ , Be ₂ , B ₂ , C ₂ , N ₂ , O ₂ , O ₂ ⁺ , O ₂ ²⁻ , F ₂ , Ne ₂ , M.O. energy level diagram, for heteronuclear diatomic molecule like CO, NO, HCl, HF, CO ₂ , NO ₂ .	12 L
	Introduction to coordination chemistry	Coordination no., charge on the complex ion, oxidation no. of Metal ion, first and second coordination sphere, Ligands, IUPAC nomenclature of coordination compounds, Different geometries of coordination compounds with C.N.= 4 to C.N.=10 and examples of each geometry.	02 L
	Werner's theory of coordination compounds	Assumptions, Werner's formulation of Coordination compounds, Physical and chemical test to support his formulation of ionizable and non-ionizable complexes, Stereoisomerism in complexes with C.N.4 and C.N. 6 to identify the correct geometrical arrangement. Assignment- 1,	02 L

Aug-17	Isomerism in coordination complexes	Definition of isomerism in complexes, types of isomerism, structural & stereoisomerism & its types.	04 L
	Sedgwick theory	Concept of Sedgwick's model, EAN rule, Calculations of EAN value for different complexes and stability of complexes, Advantages and Drawbacks of Sedgwick's theory. • Surprise test.	02 L
	Paulings valence bond theory	Introduction to VBT, representation of tetrahedral, square planar, trigonalbipyramidal and octahedral complexes with examples, Inner and outer orbital complexes, Electro neutrality principle, Multiple bonding($d\pi$ - $p\pi$ and $d\pi$ - $d\pi$), Limitations of VBT. • Assignment-3 • Internal Examination -1	08 L
Sep-17	Crystal field theory	Introduction & Need to CFT, shape & degeneracy of d-orbital, splitting of d-orbital, CFSE, calculation of CFSE, calculation of $10Dq$ and factors affecting magnitude of $10Dq$, d-d transitions and colour of the complexes, Jahn-Teller distortion theorem, Nephelauxetic effect. Problems on $10dq$ value.	10 L
	Molecular orbital theory of coordination complex	Introduction, Assumptions, MO treatment to octahedral complexes with sigma bonding, Formation of MO's from metal orbitals, Charge transfer spectra, Formation of complex without pi-bonding. • Question paper checking	04 L

K.T.S.P.MANDAL'S

**HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY**

Teaching Plan Year 2017-18

Class: T. Y. B. Sc. Chemistry, Sem.-III

Name of Paper: Organic Chemistry

No. of Lectures allotted per week:02

Name of Teacher : Prof.Y.S.Walunj, Dr. P.S Kulkarni .

Month	Name of Chapter	Topic Covered	Lect ures
July-2017	Strength of organic acids and bases	<i>p</i> _k <i>a</i> , origin of acidity, influence of solvent, simple aliphatic saturated and unsaturated acids, substituted aliphatic acid, phenols, aromatic carboxylic acids, <i>p</i> _k <i>a</i> and temperature, <i>p</i> _k <i>b</i> , aliphatic and aromatic bases, heterocyclic bases, acid base catalysis.	03 L
Aug-2017	Stereochemistry of disubstituted cyclohexane	Introduction, 1,1-alkyl disubstituted cyclohexane; Dimethyl cyclohexane 1,2; 1,3 and 1,4. Geometrical isomerism, Optical isomerism, stability of conformation, energy calculations	06 L
Sept-2017	Nucleophilic substitution at aliphatic Carbon	Introduction, Nucleophile and leaving groups, Mechanism of nucleophilic substitution. The S _N 1 reaction: Kinetics, mechanism and stereochemistry (Racemization), stability of carbocation. The S _N 2 reaction: Kinetics, mechanism & stereochemistry (inversion). How to know whether a given reaction will follow S _N 1 or S _N 2 mechanism. Comparison of S _N 1 & S _N 2 reactions. S _N i reaction and mechanism.	08 L

Oct-2017	Reactions of unsaturated hydrocarbons and carbon oxygen double bond	<p>a) Reaction of Carbon-Carbon double bond: Introduction, Mechanism of electrophilic addition to C=C bond. Orientation & reactivity, Rearrangements, (Support for formation of carbocation). Addition of hydrohalogen, Anti Markownikoff's addition (peroxide effect) with mechanism, Addition of halogens (dl pairs and meso isomers), hypohalous acids (HOX), Hydroxylation (Mechanism of cis and trans 1,2-diols). Hydroboration- Oxidation (Formation of alcohol), Hydrogenation (Formation of alkane), Ozonolysis (formation of aldehydes & ketones)</p> <p>b) Reactions of Carbon –Carbon triple bond: Addition of hydrogen, halogens, halogen acids, water and formation of metal acetylides and its application.</p> <p>c) Reactions of Carbon –Oxygen double bond: Introduction, Structure of carbonyl group, reactivity of carbonyl group, addition of Hydrogen cyanide, alcohols, thiols, water, ammonia derivatives, Cannizzaro and Reformaski reactions with mechanism.</p>	15 L
July 17	Elimination Reactions	Introduction; 1,1; 1,2 elimination, E1, E2 and E1cB mechanism with evidences, Hoffmann and Saytzeff's elimination, reactivity effect of structure, attacking and leaving groups.	06 L
Aug 17	Aromatic Electrophilic and Nucleophilic substitution	Introduction, arenium ion mechanism, Effect of substituent group (Orientation, o/p directing and meta directing groups). Classification of substituent groups (activating and deactivating	10 L

	reactions	groups) Mechanism of – Nitration, Sulfonation, Halogenation, Friedel-Crafts reactions, Diazo Coupling reactions, Ipso-substitution. Addition- elimination (S _N Ar), S _N 1, Elimination- addition (Benzyne) S _N R1 reactions, reactivity.	
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K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune

Teaching Plan 2017-18 Class: T. Y. B. Sc. Sem.-III

Name of Paper: Analytical Chemistry

No. of Lectures allotted per week: 04 **Name of Teacher** : DR.S.B.Suruyawanshi.

Month	Name of Chapter	Topic Covered	Lectures
Jul-17	Gravimetric Analysis	Common ion effect and solubility product principles, Conditions for good precipitation, Factors affecting precipitation like acid, temperature, nature of solvent, Super saturation and precipitation formation, Precipitation from homogeneous solution and examples, Co-precipitation, postprecipitation and remedies for their minimization, Washing of precipitate and ignition of precipitate, Brief idea about method of filtration and drying of precipitate, Introduction to electrogravimetry: principle, applications, electrolytic separations of Cu and Ni, Numerical problems only on gravimetric analysis.	12 L
Jul-17	Thermal methods of analysis	Principle of thermal analysis, classification of thermal techniques, Principle, instrumentation and applications of TGA and DTA, factors affecting the thermal analysis, numerical problem.	06 L

Aug-17	Spectrophotometry	Introduction, Electromagnetic spectrum, Interaction of electromagnetic radiations with the matter, Mathematical Statement and derivation of Lambert's Law and Beer's Law, Terminology involved in spectrophotometric analysis, Instrumentation of single beam colorimeter, Instrumentation of single and double beam spectrophotometer, Principle of additivity of absorbance and simultaneous determination, Spectrophotometric Titrations, Experimental Applications- Structure of organic compounds, Structure of complexes, Numerical Problems	10 L
Aug-17	Polarography	Introduction to voltammetric methods of analysis, Principles of polarographic analysis, Dropping Mercury Electrode, Instrument and working of polarographic apparatus, Ilkovic equation and quantitative analysis, Polarogram and chemical analysis, Analysis of mixture of cations, Factors affecting polarographic wave, Quantitative Applications, Numerical Problems	08 L
Sep-17	Atomic Absorption Spectroscopy	Introduction and theory of atomic absorption spectroscopy, Instrumentation of single beam atomic absorption Spectrophotometer, Measurement of absorbance of atomic species by AAS, Spectral and Chemical Interferences, Qualitative and Quantitative Applications of AAS. Numerical	06 L

		Problems.	
Oct-17	Flame Emission Spectroscopy	Introduction and theory of atomic emission spectroscopy, Instrumentation of single beam flame emission spectrophotometer, Measurement of emission of atomic species, Interferences in emission spectroscopy, Methods of analysis- calibration curve method, Standard addition method, and internal, standard method, Qualitative and Quantitative Applications of FES, Numerical Problems	06 L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY Teaching plan 2017-2018

Name of Paper- Industrial chemistry (T.Y.B.Sc) Sem- III

No. of Lectures-04 Name of teacher: Prof .N.V.Gundal,Prof.S.G.Muthe

Month	Chapter	Topic	L
July 2017	Modern Approach to Chemical Industry	Introduction, basic requirements of chemical industries, chemical production, raw materials, unit process and unit operations, Quality control, quality assurance, process control, research and development, pollution control, human resource, safety measures, classification of chemical reactions, batch and continuous process, Conversion, selectivity and yield, copy right act, patent act, trade marks	08
Aug 2017	Agro chemicals	General introduction and scope of agrochemicals, meaning and examples of: Insecticides, Herbicides, Fungicides, Rodenticides, Pesticides, Plant growth regulators. Pesticide formulation, slow release pesticide formulations, storage stability test, and Industrial entomology. Advantages and disadvantages of agrochemicals. Structure,: DDT, BHC, Warfarin, Aldrin, Endosulphan, synthesis and application: DDT, BHC and Endosulphan. Biopesticides like Neem oil	08
Aug 2017	Manufacture of Basic Chemical	Ammonia: Physicochemical principles involved, Manufacture of ammonia by modified Haber-Bosch process, its uses. Sulphuric acid: Physicochemical principles involved, Manufacture of sulphuric acid by contact process, its uses, Nitric acid Physicochemical principles involved, Manufacture of nitric acid by Ostwald's process, its uses	08
Sept 2017	Petrochemicals and eco-	Introduction, occurrence, composition of petroleum, resources, processing of petroleum, calorific value of fuel, cracking, octane rating (octane number). petroleum refineries, applications of	08

	friendly fuels	<p>petrochemicals, synthetic petroleum, lubricating oils & additives</p> <p><i>Fuels and eco-friendly fuels:</i> liquid, gaseous fuel (LPG, CNG), fossil fuels, diesel, bio diesel, gasoline, aviation fuels. Use of solar energy for power generation</p>	
Sept 2017	Food and Starch Industry	<p>Definition and scope, nutritive aspects of food constituents, , food deterioration factors and their control; (b) Preservation and processing: Heat and cold preservation and processing, cold storage, food dehydration and concentration, various foods, their processing and preservation methods, fruits, beverages, cereals, grains, legumes and oil seeds; (c) Food additives: Enhancers, sugar substitutes, sweeteners, food colors</p> <p>Chemistry of starch, manufacturing of industrial starch and its applications, characteristics of some food starches, non-starch polysaccharides-cellulose-occurrence.</p>	08
Oct. 2017	Cement and Glass industry	<p>Introduction, Importance, composition of portland cement, raw materials, proportioning of raw materials, setting and Hardening of cement, reinforced concrete</p> <p>.Introduction, importance, physical and chemical properties of glass, chemical reaction, annealing of glass Special glasses: colored, safety, hard, borosilicate, optical, photosensitive, conducting, glass laminates</p>	08

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY **Teaching plan 2017-2018**
Name of Paper - Agricultural Chemistry **(T.Y.B.Sc.) Sem III**
No. of Lectures allotted per week-04 **Name of teacher- Dr. P.S. Kulkarni**

Month	Name of Chapter	Topic Covered	No. of Lect.
July 17	Soil Chemistry	Role of agriculture chemistry : Scope and importance of agricultural chemistry Agricultural chemistry and other science Definition of soil, Soil components- mineral component, organic matter or humus, soil atmosphere, soil water, soil microorganism Physical properties of soil- soil texture, soil structure, soil color, soil temp, soil density, porosity of soil. Surface soil and sub-soil Chemical properties of soil, soil reactions and solutions Factor controlling soil reaction, buffering capacity, importance of buffer action in agriculture, ion exchange	10 L
July-Aug17	Problematic Soil and Soil testing	Acid soil- formation of acid soil, effect of soil acidity of soil, reclamation of acidic soil 2.2 Alkali Soil- formation of alkali soil, reclamation of alkali soil 2.3 Classification of alkali soil- saline soil, saline alkali soil, non-saline alkali soil 2.4 Calcareous soils 2.5 Introduction to soil testing 2.6 Objectives of soil testing 2.7 Phases of soil testing- collection of soil sample, analysis in the laboratory and fertilizer applications	10 L
Aug-17	Quality of Irrigation Water	Sources of Water- Atmospheric water, Surface Water, Stored Water, Ground Water 3.2 Impurities in Water, Water quality, related problems in public health, environment and agriculture Analysis of irrigation Water (ppm, meq/lit.epm) 3.4 Dissolved constituents and their functions Major constituents- Ca, Mg, Na, K, Carbonate, bicarbonate, sulfate, Chloride and nitrate Minor constituents- B, Si, nitrite, Sulfide and fluoride 3.5 Water quality standard- total soluble salt (TSS), sodium adsorption ratio (SAR), Exchangeable sodium percentage (ESP),	08 L

		Residual sodium carbonate, salinity classes for irrigation water	
Aug-Sep 17	Plant Nutrients	Need of plant nutrients, forms of nutrients updates, nutrient absorption by plants 4.2 Classification of essential nutrients 4.2.1 Primary nutrients (N, P, K), its role and deficiency symptoms in plants 4.2.2 Secondary nutrients, (Ca, Mg, S), its role and deficiency symptoms in plants 4.2.3 Micronutrients, General functions of micronutrients (Zn, Fe, Mn, Cu, B, Mo, Cl) 4.3 Effect of environmental condition, nutrient uptake.	08 L
Sep 17	Fertilizers and Manures	Fertilizers 5.1 Introduction, Classification & application of fertilizers 5.2 Time and methods of fertilizers 5.3 Factors affecting efficiency of fertilizers 5.4 Vermicompost preparation, effect of vermicompost on soil fertility 5.5 Synthetic fertilizers definition, comparison of synthetic fertilizers with organic fertilizers , environmental effect of synthetic fertilizers Manures 5.6 Introduction, Definition and classification of manures 5.7 Effect of bulky organic manures on soil, farm yard manures (FYM), Factors affecting on FYM, method of preparation, losses during handling and storage 5.8 Biogas plant. Human waste, sewage and sludge, types of sludge, carbon nitrogen ratio, sewage irrigation and uses 5.9 Green manuring, types of green manuring, characteristics, advantages and disadvantages of green manuring 6.0 Biofertilizers: definition, classification, role & advantages	06 L
Sep 17	Protection of Plants	Pesticide Classification and mode of action 7.1 Insecticide- Definition, Classification, chemical properties, elemental composition, mode of action of synthetic and plant originated compounds organophosphates, malathion, parathion, carbamates 7.2 Fungicides- Definition, Classification, Chemical properties, mode of action of S & Cu fungicides 7.3 Herbicides- Definition,, Classification, composition, mode of action of Selective and non-selective herbicides	06 L

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune
Teaching Plan Year 2017-18 **Class: T. Y. B. Sc. Chemistry, Sem.-IV**
Name of Paper: Physial Chemistry **No. of Lectures allotted per Week: 04**
Name of Teacher: Prof. Walunj Y.S.

Month	Name of Chapter	Topic Covered	Lectures
Dec-2017	Electrochemical Cells	Reversible and irreversible cells, EMF and its measurements, Standard cells, cell reaction and EMF, Single electrode potential and its calculation, Calculation of cell EMF, Thermodynamics of cell EMF, Types of electrodes, Classification of electrochemical cells with and without transference, Applications of EMF measurement-i) Solubility product of sparingly soluble salt, ii) Determination of pH, iii) Potentiometric titration	10 L
Jan-2018	Nuclear Chemistry	The atom, nucleus and outer sphere, classification of nuclides, nuclear stability and binding energy. Discovery of radioactivity, types of radioactivity, general characteristics of radioactive decay and decay kinetics, Measurements radioactivity, gaseous ion collection method, proportional and G.M. counter. Applications of radioactivity- Radiochemical principles in the use of tracers, Typical applications of radioisotopes as a tracer i) Chemical investigations- reaction mechanism, ii) Structure determination- phosphorus pentachloride and thiosulphate ion iii) Age determination- by Carbon-14 dating	18L

		and Uranium-Lead/ Thorium-Lead Ratio iv) Medical applications-Assess the volume of blood in patients body, Goiter	
Feb-2018	Crystal structure	Crystallization and fusion process, Crystallography, Crystal systems,- Properties of crystals, Crystal lattice and unit cell,-Crystal structure analysis by X ray - The Laue method and Braggs method, - X-ray analysis of NaCl crystal system, - Calculation of d and λ for a crystal system.	10L 04L
Mar-2018	Quantum Chemistry	Concept of quantization, atomic spectra (no derivation), wave particle duality, uncertainty principle, wavefunction and its interpretation, well-behaved function, Hamiltonian (energy) operator, formulation of Schrodinger equation, particle in box (1D, 2D and 3D box) (no derivations), sketching of wavefunction and probability densities for 1D box, correspondence principle, degeneracy(lifting of degeneracy), applications to conjugated systems, harmonic oscillator, wavefunction and probability densities (no derivation), zero point energy and quantum tunneling.	04L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune
Teaching plan 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.-IV
Name of Paper: Inorganic Chemistry No. of Lectures allotted per week:
04
Name of Teacher: Prof. Dongare N.D.

Month	Name of Chapter	Topic Covered	Lectures
Dec-17	Chemistry of f-block elements	Introduction of f-block elements I. Lanthanides - Position of periodic table, name, E.C, oxidation state, occurrence, Lanthanide contraction, applications of lanthanides. II. Actinides -Name and electronic Configuration of actinides, general methods of preparation of transuranic elements, IUPAC nomenclature of super heavy elements, comparison bet ⁿ Lanthanide & actinides.	08L
Dec-17	Metals, Semiconductors and Super conductors	Metallic bonding, Band theory in metals with respect to Na along with n (E) & N(E) diagrams, Semiconductors & their types, N & P type semiconductors ZnO and NiO, Applications of superconductors.	10L
Mar - 18	Bioinorganic Chemistry	Introduction, Role of metals in bioinorganic chemistry, Metalloproteins, Bioinorganic Chemistry of Fe: Bioinorganic Chemistry of Co.	06L
Jan-18	Ionic Solids	Crystalline and amorphous solids, crystal structures simple cubic, BCC & FCC, Voids in crystal structure, Palings univalent and crystal radii, Born-Lande equation, Born Haber cycle and its applications, schottky & Franckel defect.	06L

Jan 18	Homogeneous Catalysis	Definition, types of homogeneous catalysts, Catalytic Reactions such as: a. Wilkinson's Catalysis b. Zeigler Natta Catalysis c. Monsanto acetic acid synthesis	06L
Feb-18	Heterogeneous Catalysis	Def ⁿ , types of heterogeneous catalysts, Catalytic Reactions: i. Synthesis of terephthalic acid from xylene using ZSM-5 Synthesis of benzoic acid from toluene using KMnO ₄ Hydrogenation of alkene to alkane using Raney Ni catalyst Synthesis of p-aminophenol from nitrobenzene using Pd/C catalyst Cyclization.	08L
Mar-18		Biodisel synthesis- transesterification reaction. Special guidance with respect to Examination.	04L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya Rajgurunagar, Tal. Khed Dist. Pune
Teaching Plan Year 2017-18 **Class: T. Y. B. Sc. Chemistry, Sem.-IV**
Name of Paper: Organic Chemistry **No. of Lectures allotted per week:02**
Name of Teacher : Prof.S.S.Kolekar ,Dr.P.S Kulkarni.

Month	Name of Chapter	Topic Covered	Lectures
Dec 17	Carbanions and their reactions	Introduction, Formation and stability of Carbanion. Reactions involving carbanions and their mechanisms: Aldol, Claisen, Dieckmann and Perkin condensations. Synthesis and Synthetic applications of Malonic ester, Acetoacetic ester and Wittig reagent.	06 L
Jan 18	Retrosynthetic analysis and applications	Introduction, Different terms used – Disconnection, Synthons, Synthetic equivalence, FGI, TM. One group disconnection, Retrosynthesis and Synthesis of target molecules: Acetophenone, Crotonaldehyde, Cyclohexene, Benzylbenzoate, and Benzyl diethyl malonate	05 L
Feb 18	Rearrangement reactions	Introduction, Mechanism of rearrangement reaction involving carbocation, nitrene and oxonium ion intermediate. Beckmann, Bayer-Villiger, Pinacol-pincolone, Curtius, Favorski, Claisen rearrangement	06 L
Dec 17	Spectroscopic methods in structure determination of Organic compounds	Introduction, meaning of spectroscopy, nature of electromagnetic radiation, wave length, frequency, energy, amplitude, wave number, and their relationship, different units of measurement of wavelength frequency, different regions of electromagnetic radiations. Interaction of	24 L

<p>Jan 18</p>		<p>radiation with matter. Excitation of molecules with different energy levels, such as rotational, vibrational and electronic level. Types of spectroscopy and advantages of spectroscopic methods</p> <p>A) Ultra Violet Spectroscopy Introduction, nature of UV, Beer's law, absorption of UV radiation by organic molecule leading to different excitation. Terms used in UV Spectroscopy- Chromophore, Auxochrome, Bathochromic shift (Red shift), hypsochromic shift (Blue shift), hyperchromic and hypochromic effect. Effect of conjugation on position of UV band. Calculation of λ_{max} by Woodward and Fisher rules for dienes and enone systems, Colour and visible spectrum, Applications of UV Spectroscopy- Determination of structure, Determination of stereo chemistry (Cis and trans)</p>	
<p>Feb 18</p>		<p>B) Infra red Spectroscopy Introduction, Principle of IR Spectroscopy, Fundamental modes of vibrations ($3N-6$, $3N-5$) Types of vibrations (Stretching and bending), Hooke's law, Condition for absorption of IR radiations, vibration of diatomic molecules. Regions of IR Spectrum: fundamental group region, finger print region aromatic 29 region, Characteristic of IR absorption of functional groups: Alkanes, alkenes, alkynes, alcohol, ethers, alkyl-halides, carbonyl compounds ($-\text{CHO}$, $\text{C}=\text{O}$, $-\text{COOR}$, $-\text{COOH}$), amines, amides and</p>	

		<p>Aromatic Compounds and their substitution Patterns. Factors affecting on IR absorption: Inductive effect, resonance effect, hydrogen bonding. Application of IR Spectroscopy in determination of structure, chemical reaction and hydrogen bonding.</p> <p>C) PMR Spectroscopy Introduction, Principles of PMR Spectroscopy, Magnetic and nonmagnetic nuclei, Precessional motion of nuclei without mathematical details, Nuclear resonance, chemical shift, shielding, & deshielding effect. Measurement of chemical shift, delta and Tau-scales. TMS as reference and its advantages, peak area, integration, spin-spin coupling, coupling constants, <i>J</i>-value (Only first order coupling be discussed)</p> <p>D) Problems based on U.V., I.R. and PMR</p>	
Mar 18	Natural Products	<p>Terpenoids: Introduction, Isolation, Classification. Citral- structure determination using chemical and spectral methods, Synthesis of Citral by Barbier and Bouveault Synthesis.</p> <p>Alkaloids: Introduction, extraction, Purification, Some examples of alkaloids and their natural resources. Ephedrine- structure determination using chemical methods. Synthesis of Ephedrin by Nagi.</p>	07 L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar, Tal. Khed Dist. Pune
Teaching Plan 2017-18 Class: T. Y. B. Sc. Sem.-IV
Name of Paper: Analytical Chemistry No. of Lectures : 04
Name of Teacher DR.S.B.Suruyawanshi.

Month	Name of Chapter	Topic Covered	L
Nov-17	Chromatography	Introduction and classification of chromatographic methods, Principle of chromatographic analysis with match box model, Theoretical plates and column efficiency, Theory, Principle, technique and applications of- Column Chromatography, Ion exchange Chromatography, Thin layer Chromatography, Paper Chromatography, Numerical Problems	08 L
Dec-17	Gas Chromatography	Introduction, Theory, Principle, GSC and GLC, Separation mechanism involved in GSC and GLC, Instrumentation of Gas chromatography, Working of gas chromatography, Gas chromatogram and qualitative-quantitative analysis, Applications of gas chromatography	10 L
Jan-18	Nephelometry and Turbidimetry Internal Examination - 01	Introduction, Principles and instrumentation of Nephelometric and Turbidimetric analysis, Difference between Nephelometric and Turbidimetric measurements, Choice between Nephelometry and Turbidimetry, Factors affecting Nephelometric and Turbidimetric measurements, Quantitative Applications, Numerical Problems	09L

Jan-18	High Performance Liquid Chromatography	Introduction, Need of liquid chromatography, Separation mechanism involved in adsorption and partition HPLC, Instrumentation and working of HPLC, Applications of HPLC, Introduction to supercritical fluid chromatography	09L
Feb-18	Electrophoresis	Introduction, Principle and theory of electrophoresis, Different types of electrophoresis techniques, Moving Boundary Electrophoresis, Zone electrophoresis- Paper, Cellulose acetate and Gel electrophoresis, Applications of electrophoresis	06L
Mar-18	Solvent Extraction	Introduction, Principle of solvent extraction, Distribution coefficient, distribution ratio, relation between Distribution coefficient and distribution ratio, factors affecting solvent extraction, percentage extracted, solvent extraction method, separation factor, batch extraction, counter current extraction, application of solvent extraction, numerical problems.	08 L

K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY **Teaching plan 2017-2018**
Name of Paper - Industrial chemistry (T.Y.B.Sc.) Sem IV
No. of Lectures -04 Name of teacher- Prof.S.N.Mande.

Month	Chapter	Topic	No Of Lect
NOV 2017	Polymer chemistry	Classification of Polymers: Organic and Inorganic polymers Basic concepts, nomenclature, degree of polymerization, classification of polymerization reactions, thermodynamic and transport properties of polymer, <i>Commercial polymers and their importance:</i> (a) Nylon, polyesters (terylene and dacron), rubber, vulcanization of rubber, synthetic rubber, But 2-N rubber, copolymers of butadiene, PVC, acrylic, teflon, polyethylene and acrylonitrile; (b) Silicone polymers: silicone oils, rubber, grease and resin; (c) Resins: Phenol-formaldehyde resins, urea-formaldehyde resins, epoxy resins, melamine-formaldehyde resins;	10 L
NOV/ DEC 2017	Sugar and Fermentation Industry	Sugar:-Occurrence, Manufacturing of refined cane sugar from sugar cane, general idea of carbonation and sulphitation processes and their comparison, by-product and their use. Fermentation- Introduction, importance, Basic requirement of fermentation process, Manufacture of industrial alcohol from molasses, fruits, food grains, & ethylene, Manufacturing of wine, beer, whisky, rum ; importance Power alcohol	08L
JAN 2018	Soap, detergents and Cosmetics	Chemistry of soap, raw material, chemical reaction, types of soap. Meaning of the terms detergent and surfactants, emulsion and emulsifying agents, wetting and non-wetting, hydrophobic and hydrophilic nature, amphipathic structures, types of surfactants, raw materials for detergents, washing action of soaps and detergents, detergent builders, additives. Raw materials: emulsifiers (natural, synthetic and finely	08 L

		<p>dispersed solids), lipid components (oils, waxes, fats), humectants, colours (dyes and pigments), preservatives and antioxidants.</p> <p>Cosmetics for skin: Types and problems of skin, key ingredients of skin cleansing, toners, moisturizers, nourishing, protective sunscreen, talcum powder and bleaching products. (c) Hair care: classification, ingredients, special additives for conditioning and scalp health, hair colourants (temporary, semi-permanent and gradual colourants), the plant materials (herbs) used in hair cosmetics</p>	
JAN 2018	Dyes and paints	<p><i>Dyes:</i> Introduction, classification of dyes: Structures and applications, nitro, nitroso, azo, heterocyclic, phthalenes, xanthenes, rhodamines, thiazine, cyanine, anthraquinone, indigoids, thioindigoids, phthalocyanines, wet dyes.</p> <p><i>Paints:</i> Introduction of paints, ingredients and classification, new technologies; properties of coatings; solvents, plasticizers, dyes and bioactive additives;</p> <p><i>Pigments:</i> Introduction, classification and general physical properties</p>	08 L
FEB 2018	Chemistry of pharmaceutical industries	<p><i>General aspects of drug action:</i> Introduction, classification, nomenclature, structure-activity relationship, action of drugs, factors affecting drug action, metabolism of drugs, chemical structures, methods of production and pharmacological activity. Meaning of the terms: Prescriptions, doses, analgesic, antipyretic, diuretic, anesthetics, antibiotics, anti-inflammatory, anti-viral, tranquilizer, antiulcer, antialergic and bronchodilators, cardiovascular, cold preparations, anti-hypertensive, cough preparation, anti-neoplastic, sedative and hypnotics, steroidal, contraceptive, histamine and antihistamine. Synthesis and uses: Paracetamol, Aspirin, Sulphanilamide.</p>	08 L
Mar 18	Pollution prevention and waste management	<p>Introduction, importance of waste management, concept of atom economy, Terms involved in waste minimization: source reduction, recycling, product</p>	06 L

		changes, source control, use and reuse, reclamation, assessment procedures, types of wastes, treatment and disposal of industrial waste. Treatment of wastes or effluents with organic impurities	
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K.T.S.P.MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
DEPARTMENT OF CHEMISTRY **Teaching plan 2017-2018**
Name of Paper - Dairy Chemistry **(T.Y.B.Sc.) Sem IV**
No. of Lectures allotted per week-04 **Name of teacher- Dr. P.S. Kulkarni**

Month	Name of Chapter	Topic Covered	No. of Lect.
Dec17	Market Milk	Introduction, Definition, constituents of milk of different species such as cow, buffalo, goat, etc., Chemical composition of milk of Indian breed and foreign breeds of cow, factor affecting composition of milk, characteristics of milk of different mammals, physicochemical properties of milk, acidity, pH, density, specific gravity, color and flavor of milk, food and nutritive value of milk. Microbiology of milk, growth of microorganism, stages of growth, product of microbial growth, destruction of microorganisms growth.	10 L
Dec17	Common Dairy Processes	Cream separation- Basic principles, gravity creaming water dilution and centrifugal creaming method, construction of centrifugal separator, factors affecting percentage of fat, speed of machine, temp. of milk, rate of inflow amount of flushing water formation of separator slime Pasteurization of milk, flow sheet diagram, process receiving milk, preheating filtration, clarification, cooling and storage raw milk, standardization, pasteurization, homogenization, packing and storage, uses of milk.	06 L
Dec-17 Jan18	Special Milks	Sterilized milk- Definition, method of manufacture in detail, Advantages and disadvantages. 2. Homogenized milk,- Definition, merits and demerits factor influencing homogenization, Process of manufacture. 3. Soft curd milk- Definition, characteristics, method of preparation of soft curd milk. 4. Flavored milk- Definition, types, method of manufacture flow sheet diagram. 5. Vitaminised / irradiated milk- - Definition, method of manufacture. 6. Fermented milk-Definition, method of	08 L

		manufacture. 7. Standardized milk- Definition, method of manufacture.	
Jan 18	Milk proteins, Carbohydrates and Vitamins	Milk proteins- importance of proteins found in the milk-casein, albumin and globulin, composition, nomenclature, properties and uses. 2. Carbohydrates- importance of lactose, classification, properties, nutritive value of lactose use of lactose. 3. Vitamins- importance, definition, 74 properties nutritive value of vitamins, Vit-A, Vit-B, B2, B6, B12, Vit-C (Ascorbic acid) & Vitamin-D. 4. Food and nutritive value of milk, milk & public health	08 L
Jan-Feb 18	Preservatives & Adulterants in Milk	Preservation of milk- Introduction, Common preservatives are used. 2. Adulterants Introduction, Modes of Adulteration and their detection such as skimming, addition of separated milk, skim milk, Water, Starch and cane sugar.	06 L
Feb 18	Milk Products	Cream, Butter, Cheese and Ice-Cream. 1. Cream- Definition, Classification, Composition, Food & Nutritive value, Physicochemical properties, Manufacture and uses of cream. 2. Butter- Definition, Classification, Composition, Food & nutritive value, Physicochemical properties, Manufacture and uses of Butter selection of milk/cream. Preheating of milk, Separating of milk, neutralization of cream, Pasteurization of cream, Cooking & ageing, repending of cream, salting of butter, washing of butter, packaging & Storage, use of butter. 3. Cheese- Definition, Classification, Food & nutritive value, properties, Manufacture and uses of cheese. 4. Ice-cream- Definition, Classification, Composition, Food & Nutritive value, Manufacture, packing, hardening & Storage, uses of Ice-cream	08 L
Feb-March 18	Dried Milk Products	Introduction, butter milk powder, whey powder, cream powder, infact milk powder, Shrikand powder, Ice-cream mix powder, cheese powder.	4 L

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Teaching plan Year 2017-18 Class: T. Y. B. Sc. Chemistry, Sem.: Ist and IInd
Name of Paper: Physical Chemistry Practicals
No. of Lectures allotted per batch: 04
Batches : A,B,C,D,E,F,G

S.N.	Date	Name of Practicals
1.	July	To study the effect of concentration of the reactants on the rate of hydrolysis of an ester.
2.	Aug	To compare the relative strength of HCl and H ₂ SO ₄ by studying the kinetics of hydrolysis of an ester
3.	Aug	To determine the energy of activation of the reaction between potassium iodide and potassium persulphate
4.	Aug	To determine the order of reaction between K ₂ S ₂ O ₈ and KI by half-life method.
5.	Aug	To determine the molecular weight of a high polymer by using solutions of different concentrations
6.	Sep	To investigate the adsorption of oxalic acid /acetic acid by activated charcoal and test the validity of Freundlich / Langmuir isotherm
7.	Sep	To study the effect of addition of salt on critical solution temperature of phenol water System
8.	Sep	To determine the specific refractivity's of the given liquids A and B and their mixture and hence determine the percentage composition their mixture C.
9.	Sep	To determine the molecular refractivity of the given liquids A, B, C and D.
10.	Dec	Determination of λ_{max} and concentration of unknown solution of KMnO ₄ in 2 N H ₂ SO ₄
11.	Dec	Determination of λ_{max} and concentration of unknown solution of CuSO ₄ .
12.	Dec	To prepare standard 0.2 M Na ₂ HPO ₄ and 0.1 M Citric acid solution, hence prepare four different buffer solutions using them. Determine the pka value of these and unknown solutions.
13.	Dec	To determine the concentrations of strong acid and weak acid present in the mixture by titrating with strong base.
14.	Jan	To determine the degree of hydrolysis of aniline hydrochloride
15.	Jan	To determine pka value of given weak acid by pH-metric

		titration with strong base.
16.	Jan	To determine pH of various mixtures of sodium acetate and acetic acid in aqueous solution and hence to find the dissociation of acetic acid.
17.	Jan	To determine the cell constant of the given cell using 0.01 M KCl solution and hence determine dissociation constant of a given monobasic weak acid.
18.	Feb	To estimate the amount of lead present in given solution of lead nitrate by conductometric titration with sodium sulphate.
19.	Feb	Journal Submission
20.	Feb	Internal Examination

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Teaching plan Year 2017-18 Class: T. Y. B. Sc. Chemistry Sem.: Ist and IInd
Name of Paper: Inorganic Chemistry Practicals
No. of Lectures allotted per batch: 04
Batches : A,B,C,D,E,F,G

Sl. No.	Date	Name of Practicals
1.	July	Qualitative Analysis Mixture No. 1
2.	Aug	Mixture No. 2
3.	Aug	Mixture No. 3
4.	Aug	Mixture No. 4
5.	Aug	Mixture No. 5
6.	Sep	Mixture No. 6
7.	Sep	Volumetric Estimations Mn by volhard method
8.	Sep	Analysis of Alkali mixture by Volumetric method
9.	Sep	Estimation of % purity of given sample of Sodium Chloride
10.	Dec	Inorganic preparations Preparation of $[\text{Ni}(\text{NH}_3)_6]^{2+}$
11.	Dec	Preparation of $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$ and estimation of Copper Idometrically
12.	Dec	Preparation of Crystals of Potash alum and estimation of aluminum volumetrically.
13.	Dec	Gravimetric estimations Fe as Fe_2O_3
14.	Jan	Nickel as Ni – DMG
15.	Jan	Gravimetric estimation of Ba as BaSO_4 using homogeneous precipitation method
16.	Jan	Colorimetric Estimations Iron
17.	Jan	Cobalt
18.	Feb	Separation of binary mixture of cations by Column Chromatography
19.	Feb	Separation of binary mixture of cations by Column Chromatography
20.	Feb	Internal Examination

K.T.S.P. Mandal's
Hutatma Rajguru Mahavidyala Rajgurunagar, Tal. Khed Dist. Pune
Teaching plan Year 2017-18 Class: T. Y. B. Sc. Chemistry Sem.: Ist and IInd
Name of Paper: Organic Chemistry Practicals
No. of Lectures allotted per batch: 04
Batches : A,B,C,D,E,F,G

Sr. No.	Date	Name of Practicals
1.	July	Separation of Binary Mixtures and Qualitative Analysis Mixture No. 1
2.	Aug	Mixture No. 2
3.	Aug	Mixture No. 3
4.	Aug	Mixture No. 4
5.	Aug	Mixture No. 5
6.	Sep	Mixture No. 6
7.	Sep	Mixture No. 7
8.	Sep	Mixture No. 8
9.	Dec	Organic Estimations i. Estimation of acetamide.
10.	Dec	ii. Estimation of Ethyl benzoate.
11.	Dec	iii. Determination of Molecular weight of Monobasic acids by Volumetric Methods.
12.	Dec	iv. Determination of Molecular weight of Dibasic acids by Volumetric Methods
13.	Jan	Organic Preparations Benzoquinone from Hydroquinone (Oxidation by $\text{KBrO}_3/\text{K}_2\text{CrO}_3$)
14.	Jan	P-nitroacetanilide from Acetanilide (Nitration)
15.	Jan	P-Iodonitrobenzene from P-Nitroaniline (Sandmeyer Reaction)
16.	Feb	Benzoic acid from Ethyl benzoate (Ester hydrolysis)
17.	Feb	Internal Examination

Dr.S.B.Suryawanshi

Head of the Department

खेड तालुका शिक्षण प्रसारक मंडळाचे
हुतात्मा राजगुरू महाविद्यालय,

राजगुरूनगर ता. खेड, जि. पुणे. पिन - ४१०५०५

मराठी विभाग
अध्यापनाचे वार्षिक नियोजन
शैक्षणिक वर्ष २०१७ - २०१८

अ.क्र.	वर्ग	विषयाचे नाव	एकूण तुकड्या	विषय शिक्षक	पान. क्र.
१	प्रथम वर्ष कला	आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी	०४	डॉ.एस.डी.शिंदे डॉ.बी.डी.अनुसे प्रा.व्ही.व्ही.कांबळे	२
२	प्रथम वर्ष वाणिज्य	मराठी पुनर्रचित अभ्यासक्रम	०८	डॉ.एस.डी.शिंदे प्रा.व्ही.व्ही.कांबळे प्रा.एस.व्ही.धानापुणे	३
३	द्वितीय वर्ष कला	आधुनिक मराठी साहित्य आणि उपयोजित मराठी (जी २)	०१	डॉ.एस.डी.शिंदे	४
४	द्वितीय वर्ष कला	मराठी साहित्यातील विविध साहित्यप्रकार (एस.१)	०१	डॉ.बी.डी.अनुसे	५
५	द्वितीय वर्ष कला	अर्वाचीन मराठी वाङ्मयाचा इतिहास (एस.२)	०१	डॉ.एस.डी.शिंदे	६ ते ७
६	द्वितीय वर्ष विज्ञान	मराठी विज्ञान साहित्य आणि व्यावहारिक व उपयोजित मराठी	०१	डॉ.बी.डी.अनुसे	८
७	तृतीय वर्ष कला	आधुनिक मराठी साहित्य आणि व्यावहारिक व उपयोजित मराठी (जी ३)	०१	डॉ.बी.डी.अनुसे	९
८	तृतीय वर्ष कला	साहित्यविचार (एस.३)	०१	डॉ.एस.डी.शिंदे	१० ते ११
९	तृतीय वर्ष कला	भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक (एस.४)	०१	डॉ.बी.डी.अनुसे	१२

अध्यापन नियोजन आराखडा

वर्ग — प्रथम वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय — आधुनिक मराठी वाङ्मय आणि व्यावहारिक मराठी

विषय शिक्षकाचे नाव : डॉ.एस.डी.शिंदे, डॉ.बी.डी.अनुसे, प्रा.व्ही.व्ही.कांबळे

महिना	घटक	उपघटक	तासिका
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प्रथम सत्र

जून २०१७	घटक १ — नेमलेला कथासंग्रह 'मराठी विनोदी कथा' —	वर्तमानपत्रकर्ता — श्री.कृ.कोल्हटकर	०६
जुलै २०१७	'मराठी विनोदी कथा' —	नाटक कसे लिहावे — राम गणेश गडकरी चिमणरावांचे वक्तृत्व — चिं.वि.जोशी पहिले कावळे संमेलन—आचार्य अत्रे म्हैस — पु.ल.देशपांडे	१६
ऑगस्ट २०१७	'मराठी विनोदी कथा' —	तक्रार — शंकर पाटील बंडू आणि अमेरिकेची कानउघाडणी — गंगाधर गाडगीळ, झोप — द.मा.मिरासदार	१६
सप्टेंबर २०१७	'मराठी विनोदी कथा' — घटक २ व्यक्तिमत्त्व विकास आणि भाषा	आचार्य अत्रे कसा झालो नाही — मुकुंद टांकसाळे पेज श्री कथा — मंगला गोडगोले व्यक्तिमत्त्व विकास संकल्पना व्यक्तिमत्त्व विकासात भाषेचे स्थान	१६
ऑक्टोबर २०१७	भाषिक कौशल्ये कार्यक्रम नियोजन कौशल्ये	लेखन, वाचन, संभाषण, श्रवण कौशल्ये सूत्रसंचालन, प्रास्ताविक, परिचय, स्वागत, मनोगत.	१०

द्वितीय सत्र

डिसेंबर २०१७	घटक ३ नेमलेला कवितासंग्रह 'मातृपंचक'	कवितेचे स्वरूप, जन्मदात्री आई संबंधी कविता काळी आई संबंधी कविता	१६
जानेवारी २०१८	'मातृपंचक'	दैवत माऊली संबंधी कविता, मातृभाषा संबंधी कविता, मातृभूमी संबंधी कविता	१६
फेब्रुवारी २०१८	'मातृपंचक' घटक ४ व्यावहारिक मराठी	मातृभूमी संबंधी कविता वर्तमानपत्रासाठी बामती लेखन दृक—श्राव्य माध्यमांसाठी मुलाखत लेखन	१६
मार्च २०१८	घटक ४ व्यावहारिक मराठी	पारिभाषिक संज्ञा अशुद्ध शब्द शुद्ध करणे	१२

अध्यापन नियोजन आराखडा

वर्ग — प्रथम वर्ष वाणिज्य

शैक्षणिक वर्ष २०१७ — २०१८

विषय — मराठी

विषय शिक्षकाचे नाव : डॉ.एस.डी.शिंदे, प्रा.व्ही.व्ही.कांबळे, प्रा.एस.व्ही.धानापुणे

महिना	घटक	उपघटक	तासिका
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प्रथम सत्र

जून २०१७	घटक १ — व्यावहारिक आणि उपयोजित मराठी	निबंध लेखन	०६
जुलै २०१७	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ. श्रीराम लागू, लता मंगेशकर डॉ.राम ताकवले, डॉ. विजय भटकर	१६
ऑगस्ट २०१७	घटक २ — यशोगाथा पाठ्यपुस्तक	डॉ.ह.वि.सरदेसाई, डॉ.रघुनाथ माशेलकर, डॉ. बालाजी तांबे	१६
सप्टेंबर २०१७	घटक २ — यशोगाथा पाठ्यपुस्तक	सिंधुताई सपकाळ, श्री.हुकमीचंद व सौ.कमल चोरडिया,	१६
ऑक्टोबर २०१७	घटक २ — यशोगाथा पाठ्यपुस्तक	फादर फ्रान्सिस दिब्रिटो, सचिन तेंडूलकर	१०

द्वितीय सत्र

डिसेंबर २०१७	घटक २ — उपयोजित मराठी	अर्जलेखन, टिप्पणीलेखन, निविदा लेखन	१६
जानेवारी २०१८	घटक २ — उपयोजित मराठी	इतिवृत्तलेखन, माहितीपत्रक, घोषणापत्रक जाहीर निवेदन,	१६
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अध्यापन नियोजन आराखडा

वर्ग — द्वितीय वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय — आधुनिक मराठी साहित्य आणि उपयोजित मराठी

विषय शिक्षकाचे नाव : डॉ.एस.डी.शिंदे

महिना	घटक	उपघटक	तासिका
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प्रथम सत्र

जून २०१७	घटक १— उपयोजित मराठी	१. अर्जलेखन	०६
जुलै २०१७	उपयोजित मराठी घटक २— चरित्र या साहित्य प्रकाराची तात्विक मीमांसा	२. अशुद्ध शब्द शुद्ध करून लिहिणे चरित्र : संकल्पना, चरित्र: साहित्य प्रकाराचे स्वरूप, चरित्र: साहित्य प्रकाराची वाटचाल	१६
ऑगस्ट २०१७	घटक ३ — पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक	१६
सप्टेंबर २०१७	नेमलेले पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक	१६
ऑक्टोबर २०१७	नेमलेले पाठ्यपुस्तक	‘जीवनवेध’ पाठ्यपुस्तक	१६

द्वितीय सत्र

डिसेंबर २०१७	व्यावहारिक मराठी ‘आत्मचरित्र’ या साहित्य प्रकाराची तात्विक मीमांसा	सारांश लेखन, पारिभाषिक संज्ञा आत्मचरित्र : संकल्पना, आत्मचरित्र व आत्मकथन : साम्यभेद,	१६
जानेवारी २०१८	‘आत्मचरित्र’ या साहित्य प्रकाराची तात्विक मीमांसा नेमलेले पाठ्यपुस्तक	आत्मचरित्र : साहित्यप्रकाराची वाटचाल ‘माझी जडणघडण’	१६
फेब्रुवारी २०१८	नेमलेले पाठ्यपुस्तक	‘माझी जडणघडण’	१६
मार्च २०१८	नेमलेले पाठ्यपुस्तक	‘माझी जडणघडण’	१२

अध्यापन नियोजन आराखडा

वर्ग — द्वितीय वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय — मराठी साहित्यातील विविध साहित्यप्रकार (एस. १)

विषय शिक्षकाचे नाव : डॉ.बी.डी.अनुसे

महिना	घटक	उपघटक	तासिका
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प्रथम सत्र

जून २०१७	१.नाटक — तात्विक, सैद्धांतिक, चर्चा,	नाटक म्हणजे काय, व्याख्या, घटक आणि रचना, नाट्यतंत्र,	०६
जुलै २०१७	१.नाटक — तात्विक, सैद्धांतिक, चर्चा २.मराठी नाट्य परंपरा	विविध नाट्यप्रकार, आशयानुसार प्रकार, नाटकाचे सादरीकरण, प्रयोगमूल्य. विकासाचे टप्पे, प्राचीन परंपरा, नाटक या साहित्य प्रकाराची वाटचाल,	१६
ऑगस्ट २०१७	२.मराठी नाट्य परंपरा	नाटक आणि इतर वाङ्मय प्रकार, साम्य—भेद	१६
सप्टेंबर २०१७	३.नेमलेले नाटक —	नटसम्राट — वि.वा. शिरवाडकर.	१६
ऑक्टोबर २०१७	३.नेमलेले नाटक —	नटसम्राट — वि.वा. शिरवाडकर.	१६

द्वितीय सत्र

डिसेंबर २०१७	कादंबरी — तात्विक, सैद्धांतिक, चर्चा,	कादंबरी या साहित्यप्रकाराची तात्विक मीमांसा, व्याख्या, घटक, स्वरूप, संकल्पना, प्रकार, वाटचाल, विशेष, रूपबंध, वर्गीकरण,	१६
जानेवारी २०१८	कादंबरी आणि इतर साहित्य	परस्पर संबंध आणि साम्यभेद. मराठी कादंबरीची जडणघडण, कादंबरीची ऐतिहासिक स्थित्यंतरे, कादंबरी या वाङ्मयप्रकाराचे समकालीन विविध आयाम,	१६
फेब्रुवारी २०१८	नेमलेली कादंबरी	फकिरा — अण्णा भाऊ साठे.	१६
मार्च २०१८	नेमलेली कादंबरी	फकिरा — अण्णा भाऊ साठे.	१२

अध्यापन नियोजन आराखडा

वर्ग — द्वितीय वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय : अर्वाचीन मराठी वाङ्मयाचा इतिहास (एस.२)

विषय शिक्षकाचे नाव : डॉ.एस.डी.शिंदे

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जून २०१७	इ.स.१८१८ ते १९२०या कालखंडातील पार्श्वभूमी	इ.स.१८१८ ते १९२०या कालखंडातील सामाजिक पार्श्वभूमी.	०६
जुलै २०१७	इ.स.१८१८ ते १९२०या कालखंडातील पार्श्वभूमी इ.स.१८१८ ते १९२०या कालखंडातील प्रेरणा आणि प्रवृत्ती	इ.स.१८१८ ते १९२०या कालखंडातील धार्मिक, सांस्कृ तिक आणि वाङ्मयीन पार्श्वभूमी इ.स.१८१८ ते १९२०या कालखंडातील प्रेरणा आणि प्रवृत्ती	१६
ऑगस्ट २०१७	इ.स.१८१८ ते १९२० या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१८१८ ते १९२०या कालखंडातील निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१८१८ ते १९२०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१८१८ ते १९२०या कालखंडातील कथा, कादंबरी, वाङ्मयप्रकारांचा स्थूल आढावा.	१६
सप्टेंबर २०१७	निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१८१८ ते १९२०या कालखंडातील कविता, नाटक, चरित्र, आत्मचरित्र या निवडक वाङ्मयप्रकारांचा आढावा.	१६
ऑक्टोबर २०१७		इ.स.१८१८ ते १९२०या कालखंडातील आत्मचरित्र वाङ्मयप्रकारांचा आढावा	०८

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डिसेंबर २०१७	इ.स.१९२१ ते १९६०या कालखंडातील पार्श्वभूमी	इ.स.१९२१ ते १९६०या कालखंडातील सामाजिक पार्श्वभूमी.	१६
जानेवारी २०१८	इ.स.१९२१ ते १९६०या कालखंडातील पार्श्वभूमी या कालखंडातील प्रेरणा आणि प्रवृत्ती	इ.स.१९२१ ते १९६०या कालखंडातील धार्मिक, सांस्कृ तिक आणि वाङ्मयीन पार्श्वभूमी इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती	१६

फेब्रुवारी २०१८	इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१९२१ ते १९६०या कालखंडातील निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१९२१ ते १९६०या कालखंडातील प्रेरणा आणि प्रवृत्ती इ.स.१९२१ ते १९६०या कालखंडातील कथा, कादंबरी, वाङ्मयप्रकारांचा स्थूल आढावा.	१६
मार्च २०१८	निवडक वाङ्मयप्रकारांचा स्थूल आढावा.	इ.स.१९२१ ते १९६०या कालखंडातील कविता, नाटक, चरित्र, आत्मचरित्र या निवडक वाङ्मयप्रकारांचा आढावा.	१६

अध्यापन नियोजन आराखडा

वर्ग — द्वितीय वर्ष विज्ञान

शैक्षणिक वर्ष २०१७ — २०१८

विषय : मराठी विज्ञान साहित्य आणि व्यावहारिक आणि उपयोजित मराठी

विषय शिक्षकाचे नाव : डॉ.बी.डी.अनुसे

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जून २०१७	घटक १ — निबंधलेखन	घटक १ — निबंधलेखन	०६
जुलै २०१७	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ.बाळासाहेब गुंजाळ	१६
ऑगस्ट २०१७	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ.बाळासाहेब गुंजाळ	१६
सप्टेंबर २०१७	घटक २ — नेमलेले पाठ्यपुस्तक	विज्ञानसृष्टी — संपा. डॉ.स्नेहल तावरे, डॉ.बाळासाहेब गुंजाळ	१६
ऑक्टोबर २०१७		अंतर्गत मूल्यमापन परीक्षा	०८

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डिसेंबर २०१७	व्यावहारिक आणि उपयोजित मराठी	भाषांतरलेखन— संकल्पना, स्वरूप	१६
जानेवारी २०१८	व्यावहारिक आणि उपयोजित मराठी	एक तृतीयांश सारांशलेखन — संकल्पना, स्वरूप	१६
फेब्रुवारी २०१८	व्यावहारिक आणि उपयोजित मराठी	प्रसारमाध्यमांसाठी विज्ञानविषयक लेखन —वर्तमानपत्रासाठी लेख तयार करणे. जाहिरात तयार करणे आकाशवाणीसाठी भाषणाचे संहितालेखन, इ.	१६
मार्च २०१८	व्यावहारिक आणि उपयोजित मराठी	दूरदर्शनसाठी मुलाखतलेखन, इंग्रजी शब्दांसाठी मराठीतील पारिभाषिक शब्द अंतर्गत मूल्यमापन परीक्षा	१२

अध्यापन नियोजन आराखडा

वर्ग — तृतीय वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय : आधुनिक मराठी साहित्य आणि व्यावहारिक व उपयोजित मराठी (जी ३)

विषय शिक्षकाचे नाव : डॉ.बी.डी.अनुसे

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जून २०१७	१.ग्रंथ परीक्षण	स्वरूप, घटक,	०६
जुलै २०१७	१.ग्रंथ परीक्षण	विविध वाङ्मय प्रकारातील साहित्यकृतींचे परीक्षण कसे करावे, ग्रंथ परीक्षण — तात्त्विक विवेचन, व्याख्या, माध्यमे, परीक्षकाचे गुण, उद्दिष्टे	१६
ऑगस्ट २०१७	२.निबंध — तात्त्विक विवेचन	ध्वनिबंध या साहित्यप्रकाराचे स्वरूप व व्याख्या, निबंधाचे प्रकार, निबंध या साहित्यप्रकारामागील प्रेरणा व प्रयोजने	१६
सप्टेंबर २०१७	३.निबंधसंग्रह	विचारधारा — संपा. डॉ.स्नेहल तावरे, डॉ. भास्कर शेळके	१६
ऑक्टोबर २०१७	३.निबंधसंग्रह	विचारधारा — संपा. डॉ.स्नेहल तावरे, डॉ. भास्कर शेळके	१६

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डिसेंबर २०१७	प्रवासवर्णन — वाङ्मयप्रकार तात्त्विक विवेचन,	वाङ्मयप्रकार तात्त्विक विवेचन, स्वरूप, व्याख्या, प्रेरणा, प्रयोजने इत्यादि. घटक अभ्यासणे.	१६
जानेवारी २०१८	प्रवासवर्णन — वाङ्मयप्रकार	प्रवासवर्णन वाङ्मयप्रकाराची व्याप्ती, वेगळेपण, वाटचाल, वैशिष्ट्ये इ.	१६
फेब्रुवारी २०१८	नेमलेले प्रवासवर्णन पुस्तक	देशविदेश — संपा. डॉ.स्नेहल तावरे, डॉ.अशोक शिंदे, डॉ. अरूण कोळेकर	१६
मार्च २०१८	नेमलेले प्रवासवर्णन पुस्तक	देशविदेश — संपा. डॉ.स्नेहल तावरे, डॉ.अशोक शिंदे, डॉ. अरूण कोळेकर	१६

अध्यापन नियोजन आराखडा

वर्ग — तृतीय वर्ष कला

शैक्षणिक वर्ष २०१७ —२०१८

विषय : साहित्यविचार (एस.३)

विषय शिक्षकाचे नाव : डॉ.एस.डी.शिंदे

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जून २०१७	साहित्याचे स्वरूप	१) शास्त्रीय साहित्य आणि ललित साहित्य यांतील भेद	०६
जुलै २०१७	१.साहित्याचे स्वरूप	२)साहित्याचे शब्दरूप ३)साहित्यातून व्यक्त होणा—या अनुभवाचे विशेष — वास्तव आणि कल्पित यांचा संबंध, संवेदनात्मकता —भावनात्मकता—वैचारिकता,सेंद्रियत्व, सूचकता,विशिष्ट आणि विश्वात्मकता	१६
ऑगस्ट २०१७	२.साहित्याचे प्रयोजन	१) प्रयोजन म्हणजे काय? २) प्रयोजन आणि परिणाम यांतील भेद ३) साहित्याची प्रयोजने — इच्छापूर्ती, जिज्ञासातृप्ती, विरेचन, आत्माविष्कार, अनुभवाची समृद्धी, स्वप्नरंजन, उद्बोधन,प्रचार, मनोरंजन, आनंद या प्रयोजनांचा लेखक व वाचक तसेच कलावादी, जीवनवादी या दृष्टीने विचार	१६
सप्टेंबर २०१७	३.साहित्याची निर्मितीप्रक्रिया ४. साहित्याची भाषा	१) साहित्याच्या निर्मितीचे स्वरूप २) साहित्यनिर्मितीच्या शक्ती ३) प्रतिभाव्यापार व स्वप्नव्यापार ४) साहित्याची निर्मिती प्रक्रिया आणि साहित्यिकाचे व्यक्तिमत्त्व व्यवहारभाषा, शास्त्रीय साहित्याची भाषा व साहित्याची भाषा यांच्यातील भेद, शब्दार्थाचा वक्रव्यापार	१६
ऑक्टोबर २०१७	४. साहित्याची भाषा	भाषेचे नादरूप, अलंकार, रूपक, प्रतिमा, प्रतीक, प्राक्कथा,शैलीविचार	०८

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डिसेंबर २०१७	५. साहित्याचा आस्वाद	१) आस्वाद म्हणजे काय ? २) आस्वाद प्रक्रिया ३) आस्वादाला आवश्यक असणारे गुण ४) आस्वादातील अडथळे	१६
जानेवारी २०१८	६. साहित्याची सामाजिकता	१) साहित्य आणि समाज यांचे परस्परसंबंध २) लेखकाची सामाजिकता ३) भाषेची सामाजिकता ४) कलात्मक अनुभवाची सामाजिकता ५) वाचकाची सामाजिकता ६) साहित्यातील सामाजिकतेला वैश्विक रूप प्राप्त होते काय ? ७) बांधिलकीची संकल्पना व साहित्यिकाची बांधिलकी	१६
फेब्रुवारी २०१८	७. साहित्यिक अभिरूची	१) अभिरूची म्हणजे काय ? २) अभिरूची आणि सौंदर्यदृष्टी ३) अभिरूची आणि औचित्य ४) अभिरूची भिन्नतेची कारणे ५) अभिरूची नियत करणारे घटक	१६
मार्च २०१८	८. साहित्यप्रकाराची संकल्पना	१) साहित्याच्या वर्गीकरणाची शक्यता २) साहित्याच्या वर्गीकरणाची आवश्यकता ३) साहित्याच्या वर्गीकरणाची तत्त्वे ४) साहित्याचे ठळक प्रकार	१६

अध्यापन नियोजन आराखडा

वर्ग — तृतीय वर्ष कला

शैक्षणिक वर्ष २०१७ — २०१८

विषय — भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक (एस.४)

विषय शिक्षकाचे नाव : डॉ.बी.डी.अनुसे

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जून २०१७	भाषेचे स्वरूप आणि कार्य	भाषा एक सहज क्रिया, संज्ञापन : भाषेचे मुख्य कार्य	०६
जुलै २०१७	भाषेचे स्वरूप आणि काय	भाषेचा आधार, ध्वनिसंकेत : चिन्ह आणि चिन्हित, भाषा एक सामाजिक संस्था, भाषेच्या अभ्यासाची आवश्यकता, भाषाभ्यास पद्धती — वर्णनात्मक, ऐतिहासिक व तौलानिक	१६
ऑगस्ट २०१७	स्वनविज्ञान व स्वननिर्मिती	वर्णद्रियांची रचना व कार्य, स्वनविज्ञानाचे स्वरूप व स्वनिम निर्माण करणारी इंद्रिये, स्वर व व्यंजनाचे स्वरूप व प्रकार	१६
सप्टेंबर २०१७	स्वनिमविचार	स्वनिम निश्चितीची तत्त्वे, विनियोग संकल्पना, स्वन, स्वनिम, स्वनांतर यांतील परस्पर संबंध	१६
ऑक्टोबर २०१७	रूपिम विचार	रूपिम तत्व, रूपिका— रूपिम आणि रूपिकांतर, परस्पर संबंध, रूपिमांचे प्रकार, प्रकृती आणि प्रत्यय यांचे वर्गीकरण, आशयबोधक रूपिम, कार्यकर रूपिम, धातू.	१६

द्वितीय सत्र

डिसेंबर २०१७	वाक्यविचार	वाक्यविन्यास संकल्पना आणि मराठीतील वाक्यविन्यास व्यवस्था, वाक्याचे घटक	१६
जानेवारी २०१८	अर्थविचार	अर्थविन्यास व मराठीतील त्यांचे स्वरूप, अर्थ ही संकल्पना, अर्थनिश्चितीमागील भूमिका, शब्दनिष्ठ अर्थ, वाक्यनिष्ठ अर्थ	१६
फेब्रुवारी २०१८	ऐतिहासिक भाषाभ्यास पद्धती	सर विल्यम जोन्स यांचा सिद्धांत, ऐतिहासिक भाषाविज्ञानाचे स्वरूप, भाषाकुलाची संकल्पना	१६
मार्च २०१८	मराठी भाषेची उत्पत्ती	मराठी भाषेची उत्पत्ती व त्या संबंधीची साधने, मराठी उत्पत्तिसंबंधी विविध सिद्धांत, वैद्य—गुणे वाद,	१६

डॉ. संजय शिंदे
मराठी विभाग प्रमुख

K. T. S. P. Mandal's
Hutatma Rajguru Mahavidyalaya , Rajgurunagar
Department Of Statistics
Syllabus Completion Report
Academic Year 2017-18

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.Sc	Descriptive Statistics	Thorat S.R.
2	F.Y.B.Sc	Discrete Probability Distributions	Thorat S.R.

Paper : Descriptive Statistics

Class: F.Y.B.Sc

Month	Topic	Subtopic
June/July 2017	1. Introduction to Statistics 2. Population and Sample	1.1 Meaning of Statistics as a Science. 1.2 Importance of Statistics. 1.3 Scope of Statistics: 1.4 Statistical organizations in India and their functions: 2.1 Types of characteristics: 2.2 Types of data: 2.3 Notion of a statistical population 2.4 Methods of sampling
August 2017	3. Summary Statistics	3.1 Classification 3.2 Measures of Central Tendency Arithmetic Mean (A.M.), median, mode Partition Values: Quartiles, Deciles and Percentiles Geometric Mean, Harmonic Mean, Weighted Mean 3.3 Measures of Dispersion Range, Semi-interquartile range, Mean deviation, Variance and standard deviation, Mean squared deviation coefficient of variation

Sept/Oct 2017	4. Moments, Skewness and Kurtosis	4.1 Raw moments (m'_r) for ungrouped and grouped data 4.2 Central moments (m_r) for ungrouped and grouped data 4.3 Relations between central moments and raw moments, upto 4-th order 4.4 Concept of skewness of frequency distribution, positive skewness, negative skewness, symmetric frequency distribution. 4.5 Bowley's coefficient of skewness 4.6 Karl Pearson's coefficient of skewness. 4.7 Measures of skewness based on moments (β_1, γ_1). 4.8 Concepts of kurtosis, leptokurtic, mesokurtic and platykurtic frequency distributions. 4.9 Measures of kurtosis based on moments (β_2, γ_2).
Nov/ Dec 2017	5. Theory of Attributes	5.1 Attributes: 5.2 Consistency of data upto 2 attributes. 5.3 Concepts of independence and association of two attributes. 5.4 Yule's coefficient of association (Q), $-1 \leq Q \leq 1$, interpretation.
January 2018	6. Correlation	6.1 Bivariate data, Scatter diagram and interpretation. 6.2 Concept of correlation between two variables 6.3 Covariance between two variables (m_{11}) : 6.4 Karl Pearson's coefficient of correlation (r) 6.5 Spearman's rank correlation coefficient: compute Karl Pearson's correlation coefficient between ranks.
February 2018	7. Linear Regression Model	7.1 Meaning of regression 7.2 Simple linear regression model: $Y = a + bX + \epsilon$ 7.3 Concept of residual, plot of residual, coefficient of determination
Feb/Mar 2018	8. Fitting of curves to the bivariate data Fitting of curves to the bivariate data	8.1 Fitting of line ($Y = a + bX$), 8.2 Fitting of second degree curve 8.3 Fitting of exponential uncorrelatedness of two variables. 8.6 Variance of linear combination of variables $\text{Var}(aX + bY)$. Correlation coefficient

	9 Index Numbers	<p>9.1 Introduction.</p> <p>9.2 Definition and Meaning.</p> <p>9.3 Problems/considerations in the construction of index numbers.</p> <p>9.4 Simple and weighted price index</p> <p>9.5 Simple and weighted price index</p> <p>9.6 Laspeyre's, Paasche's and Fisher's Index numbers.</p> <p>9.7 Consumer price index number</p> <p>(i) family budget method</p> <p>(ii) aggregate expenditure method.</p> <p>9.8 Shifting of base, splicing, deflating, purchasing power.</p> <p>9.9 Description of the BSE sensitivity and similar index numbers.</p>
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Paper : Discrete Probability Distributions**Class: F.Y.B.Sc**

Month	Topic	Subtopic
June/July 2017	1. Review of probability, conditional probability, independence	<p>1.1 Experiments/Models, Ideas of deterministic and non-deterministic models. Random Experiment, concept of statistical regularity.</p> <p>1.2 Definitions of - (i) Sample space, (ii) Discrete sample space: finite and countably infinite, (iii) Event, (iv) Elementary event, (v) Complement of an event. (vi) Certain event (vii) Impossible event</p> <p>1.3 Concept of occurrence of an event.</p> <p>1.4 Algebra of events and its representation in set theory notation. Occurrence of following events. (i) at least one of the given events, (ii) none of the given events, (iii) all of the given events, (iv) mutually exclusive events, (v) mutually exhaustive events, (vi) exactly one event out of the given events.</p> <p>1.5 Classical definition of probability and its limitations.</p> <p>1.6 Probability model, probability of an event, equiprobable and non-equiprobable sample space,</p> <p>1.7 Axiomatic definition of probability.</p> <p>1.8 Definition of conditional probability of an event.</p> <p>1.9 Definition of independence of two events $P(A \cap B) = P(A) \cdot P(B)$</p> <p>1.10 Pairwise independence and mutual independence for three events</p> <p>1.11 Multiplication theorem $P(A \cap B) = P(A) \cdot P(B|A)$. Generalization to $P(A \cap B \cap C)$.</p>
August 2017	2. Bayes' Theorem	<p>2.1 Partition of the sample space</p> <p>2.2 Proof of Bayes' theorem. Applications of Bayes' theorem in real life</p>

	3. Univariate Probability Distributions (Defined on Discrete Sample Space)	<p>3.1 Concept and definition of a discrete random variable.</p> <p>3.2 Probability mass function (p.m.f.) and cumulative distribution function (c.d.f.), $F(\cdot)$ of discrete random variable, properties of c.d.f..</p> <p>3.3 Mode and median of a univariate discrete probability distribution</p>
Septmber 2017	4. Mathematical Expectation (Univariate Random Variable)	<p>4.1 Definition of expectation (Mean) of a random variable, expectation of a function of a random variable, m.g.f. and c.g.f. Properties of m.g.f and c.g.f.</p> <p>4.2 Definitions of variance, standard deviation (s.d.) and Coefficient of variation (c.v.) of univariate probability distribution, effect of change of origin and scale on mean, variance and s.d.</p> <p>4.3 Definition of raw, central and factorial raw moments of univariate probability Distributions and their interrelations (without proof).</p> <p>4.4 Coefficients of skewness and kurtosis based on moments.</p>
October 2017	5. Some Standard Discrete Probability Distributions - I	<p>5.1 Degenerate distribution, mean and variance</p> <p>5.2 Uniform discrete distribution, p.m.f., c.d.f., mean, variance, real life situations, comments on mode and median</p> <p>5.3 Bernoulli Distribution: p.m.f., mean, variance</p> <p>5.4 Binomial Distribution: p.m.f., mean, variance</p> <p>5.5 Hypergeometric Distribution : p.m.f., Computation of probability, situations where this distribution is applicable, binomial approximation to hypergeometric probabilities, mean and variance of the distribution</p>
Nov/ Dec 2017	6. Some Standard Discrete Probability	<p>6.1 Poisson distribution: m.g.f. and c.g.f. Moments, mean, variance, skewness and kurtosis</p> <p>6.2 Geometric distribution:</p>

	Distributions - II	Mean, variance, m.g.f. and c.g.f.
January 2018	7. Bivariate Discrete Probability Distribution	<p>7.1 Definition of two-dimensional discrete random variable, its joint p.m.f. and its distribution function and their properties</p> <p>7.2 Computation of probabilities of events in bivariate probability distribution.</p> <p>7.3 Concepts of marginal and conditional probability distributions.</p> <p>7.4 Independence of two discrete random variables based on joint and marginal p.m.f.s</p>
Feb/Mar 2018	8. Mathematical Expectation (Bivariate Random Variable)	<p>8.1 Definition of raw and central moments, m.g.f, c.g.f.</p> <p>8.2 Theorems on expectations</p> <p>8.3 Conditional expectation.</p> <p>8.4 Definitions of conditional mean and conditional variance.</p> <p>8.5 Definition of covariance, coefficient of correlation, independence and uncorrelatedness of two variables.</p> <p>8.6 Variance of linear combination of variables $\text{Var}(aX + bY)$. Correlation coefficient</p>

Thorat S.R.

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.C.S.	Statistical Methods-I	Wayal.V.M
2	F.Y.B.Com	Business Mathematics and Statistics	Wayal.V.M
3	F.Y.B.C.A	Computer Applications in Statistics	Wayal.V.M

Paper: Statistical Methods-I

Class: F.Y.B.C.S

Month	Topic	Subtopic
July 2017	1.Data Condensation and graphical methods	1.1 Raw data, attributes and variables, discrete and continuous variables. 1.2 Presentation of data using frequency distribution and cumulative frequency distribution 1.3 Graphical presentation of frequency distribution-histogram, stem and leaf chart, less than and more than ogive curves. 1.4 Numerical problems related to real life situations.
	2. Review/ Revision of Descriptive Statistics	2.1 Measures of central tendency: Mean, Mode, Median Examples where each of these is most appropriate 2.2 Partition values: Quariles, Deciles, Percentiles, Box plot 2.3 Measures of Dispersion: Variance, Standard deviation, Coefficient of variation
August 2017	3.Moments	3.1 Raw and central moments 3.2 Relation between raw and central values upto fourth order 3.3 Numerical problems related moments
	4. Measures of Skewness and Kurtosis Discrete Sample Space)	3.1 Concept and definition of a discrete random variable. 4.1 Concept of symmetric frequency distribution, skewness, positive and negative skewness 4.2 Measures of skewness- Pearson's measure, Bowley's measure (β_1, γ_1) 4.3 kurtosis of a frequency distribution, Measures of kurtosis (β_2, γ_2) based upon moments, types of kurtosis:

		(β_1, γ_1) tokurtic , platykurtic, mesokurtic 4.5 Numerical problems
Septmber 2017	5. Discrete Random Variable	5.1 Definition of random variable and discrete random variable 5.2 Definition of probability mass function, distribution function and its properties 5.3 Definition of expectation and variance, theorem on expectation 5.4 Determination of median and mode using p.m.f. 5.5 Numerical problems
Sept/Oct 2017	6. Standard Discrete Distributions	6.1 Discrete Uniform Distribution: definition, mean, variance 6.2 Bernoulli Distribution 6.3 Binomial Distribution 6.4 Geometric Distribution: 6.5 Poisson Distribution: 6.6 Illustration of real life situations 6.7 Numerical problems
Nov/ Dec 2017	7. Correlation (for bivariate raw data)	7.1 Bivariate data, scatter diagram 7.2 correlation 7.3 Karl Pearson's coefficient of correlation, limit of r 7.4 interpretation of r, coefficient of determination, Auto correlation 7.5 Numerical problems
Dec 2017	8. Regression	8.1 Regression 8.2 linear Regression 8.3 Fitting of straight line using least square method 8.4 Properties of Regression coefficients 8.5 Non linear Regression: second degree curve, growth curve 8.6 Residual plot, mean residual sum of squares 8.7 Numerical problems
Jan/Feb 2018	9. Multiple and partial correlation and Regression (for trivariate data)	9.1 Yule's notation and concept of multiple regression 9.2 Fitting of multiple Regression plane 9.3 Partial Regression coefficient 9.4 Multiple correlation coefficient 9.5 Partial correlation coefficient 9.6 Numerical problems

	5-Measures of central tendency	sampling method Variables, classification of data frequency distribution graph mean ,median & mode examples
Nov 2017	6-Profit and Loss	cost price, market, selling price trade & cash discount commission & brokerage examples
Dec 2017	7-Linear programming problems 8-measures of Dispersion	Definition formulation of lpp graphical method example concept of dispersion measures of dispersion measures of relative dispersion examples
Jan 2018	9- correlation & regression	Data, scatter diagram Karl pearson's coefficient correlation rank correlation regression examples
Feb 2018	10-index number	concept and construction of index number Laspeyers , paasches & fisher index no family budget & expenditure method sensx & nifty examples

Paper : Computer Applications in Statistics Class: F.Y.B.C.A

Month	Topic	Subtopic
December 2017	1. Methods of counting and Fundamental Principals of Counting	1. Principals of counting 2. Permutations and combinations 3. Examples and problems
	2. Elements of Probability Theory	1. Random experiments, sample space, events, algebra of events. 2. Classical definition of probability, addition theorem of probability, Independence of events, Simple numerical problems.
Jan / Feb 2018	3. Standard Discrete Distributions	1. Discrete Uniform : Probability Distribution, c.d.f. mean, variance (without proof) 2. Bernoulli : probability distribution, mean, variance 3. Binomial : probability distribution, c.d.f., mean, variance, 4. Examples and problems.
March 2018	4. Simulation Techniques	1. Random Number Generator 2. Model sampling from discrete uniform and binomial distributions 3. Monte Carlo Simulation examples and problems.

Wayal V.M.

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.C.S.	Statistical Methods-II	Shah N.S.
2	F.Y.B.Com	Business Mathematics and Statistics	Shah N.S.

Paper : Statistical Methods-II

Class: F.Y.B.C.S

Month	Topic	Subtopic
July 2017	1. Detailed Review / Revision of Theory of Probability	1.1 Counting Principles, Permutation, and Combination. 1.2 Deterministic and non-determination models. 1.3 Random Experiment, Sample Spaces (finite and countably infinite) 1.4 Events: types of events, Operations on events. 1.5 Probability - classical definition, probability models, axioms of probability, probability of an event. 1.6 Theorems of probability (with proof) i) $0 \leq P(A) \leq 1$ ii) $P(A) + P(A') = 1$ iii) $P(A) \leq P(B)$ when $A \subset B$ iv) $P(A \cup B) = P(A) + P(B) - P(A \cap B)$ 1.7 Numerical problems related to real life situations
August 2017	2. Advanced Theory of Probability	2.1 Concepts and definitions of conditional probability, multiplication theorem $P(A \cap B) = P(A) \cdot P(B|A)$ 2.2 Bayes' theorem (without proof) 2.3 Concept of Posterior probability, problems on posterior probability. 2.4 Definition of sensitivity of a procedure, specificity of a procedure. Application of Bayes' theorem to design a procedure for false positive and false negative. 2.5 Concept and definition of independence of two events. 2.6 Numerical problems related to real life situations.
Sept /Oct 2017	3. Continuous Random Variable	3.1 Definition of continuous random variable (r. v.), 3.2 Probability density function (p.d.f.), 3.3 Cumulative distribution function (c.d.f.), its

		5. Numerical problems related to real life situations.
Feb 2018	8. Test based on Chi-square distribution 9. Non parametric tests 10. Simulation	1. chi-square test for goodness of fit 2. Test for independence of attributes. 3. Test for significance of variation for a population. 4. Numerical problems related to real life situations. 1. Run test 2. Sign test 3. Kolmogorov-Smirnov test 4. Mann-Whitney test 5. Numerical problems related to real life situations. 1. Introduction, merits and demerits and pitfall 2. Pseudo-random number generator 3. Model Sampling from uniform and exponential distribution

Month	Topic	Subtopic
July 2017	1-Preliminaries	Natural no & integers H.C.F & M.C.F fraction Laws of indices ratio & percentage, proportion
August 2017	2-Interest	simple interest compound interest EMI Examples
	3-Shares and Dividends	Concept of shares ,face value, market value , net asset value Equity shares and preference shares Dividend Bonus shares Examples
Sept 2017	4-Population & sample	Definition & concept of statistics scope of statistics concept of population & sample sampling method
	5-Measures of central tendency	Variables, classification of data frequency distribution graph mean ,median & mode examples
Nov 2017	6-Profit and Loss	cost price, market, selling price trade & cash discount commission & brokerage examples

Dec 2017	7-Linear programming problems 8-measures of Dispersion	Definition formulation of lpp graphical method example concept of dispersion measures of dispersion measures of relative dispersion examples
Jan 2018	9- correlation & regression	Data, scatter diagram Karl pearson's coefficient correlation rank correlation regression examples
Feb 2018	10-index number	concept and construction of index number Laspeyers , paasches & fisher index no family budget & expenditure method sensx & nifty examples

Shah N.S.

Teaching Plan

2017 - 2018

F. Y. B. Sc. Zoology

Animal Systematics and Diversity I

(Term – I; Paper I)

Sr.No	Month	Topics Covered	Teacher
1	June	Principles of classification: Systematics-Linnaean hierarchy (Phylum, Class, Order, Family, Genus and Species), Binomial nomenclature, Five kingdom classification system	DNW
2	July	Salient features and classification upto classes of the following: (any two examples from each class) Protozoa, Porifera, Coelenterata, Platyhelminthes, Aschehelminthes, Annelida	DNW
3	Aug	Study of <i>Paramoecium</i> : Systematic position, Habit and habitat , Structure, nutrition,excretion and reproduction (binary fission and conjugation)	NAN
4	Sep	Study of Earthworm : Systematic position, Habit and habitat, External characters, Digestive system, Circulatory system, Excretory system, Reproductive system, Nervous system and sense organs, Economic importance	DNW
5	Oct	Study of Earthworm : Nervous system and sense organs, Economic importance	DNW

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology TERM I PAPER II FUNDAMENTALS OF CELL BIOLOGY

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction to cell biology: Definition and scope, Stains: Principle and composition of vital stains, cytoplasmic stains and nuclear stains with two examples of each Structure of prokaryotic (E.coli) and eukaryotic (Plant and Animal) cell	DLT
2	July	Structure and function of cell membrane: Chemical composition, Fluid mosaic model, Functions of plasma membrane. Composition of Cytoplasm	DLT
3	Aug	Study of following cell organelles with respect to structure 10 and functions in brief: Endoplasmic reticulum, Golgi complex, Lysosomes, peroxisomes and glyoxysomes, Ribosomes, Mitochondria	DLT
4	Sep	Nucleus: Shape, size, number and position, Ultrastructure of nuclear envelope and pore complex, Functions	DLT
5	Oct	Cell division and their significance: Cell cycle in brief, Mitosis, Meiosis	DLT

Teaching Plan 2017 - 2018

F. Y. B. Sc. Zoology

ANIMAL SYSTEMATICS AND DIVERSITY – II

(Term – II; Paper I)

Sr. No	Month	Topics Covered	Teacher
1	Nov	Salient features and classification upto order with one example of the following: Hemichordata, Urochordata, Cephalochordata	DNW
2	Dec	Salient features of following classes with two examples of each Pisces- Cartilaginous and Bony fishes, Amphibia- Apoda, Urodela and Anura	NAN
3	Jan	Study of Frog: Systematic position, Habit and habitat, External characters and sexual dimorphism, Digestive system, food, feeding and physiology of digestion, Circulatory system, Central Nervous system, Sense organs, Reproductive systems (male & female).	NAN
4	Feb	General topics: Migration in fishes, Neoteny in amphibian, Parental care in amphibia	SBP

Teaching Plan 2017 - 2018

**F. Y. B. Sc. Zoology
GENETICS
(Term – II; Paper II)**

Sr. No	Month	Topics Covered	Teacher
1	Nov	Introduction to genetics: Mendelian inheritance: laws of heredity and their practical application, Test cross and Back cross Gene Interaction: Concept of gene interaction, co-dominance and incomplete dominance, Complementary factors (9:7), Supplementary Factors (9: 3:4), Inhibitory factors (13:3), Duplicate dominant factors (15:1)	DNB
2	Dec	Lethal genes in Mus musculus Multiple Alleles: Concept, characteristics and importance of multiples alleles, ABO & Rh-blood group system and it's medicolegal importance, Concept of polygenic inheritance with reference to skin color in man Chromosomes: Introduction to morphology and composition, Classification based on the centromeric position, Types of chromosome (autosomes and sex chromosome), Chromosomal aberrations: structural changes	DNB
3	Jan	Sex-determination: Introduction, Chromosomal theory of sex determination (XX-XY, ZZ-ZW, XXXO and Haploid-Diploid method), Parthenogenesis and Gynandromorphism Human genetics: Study of human karyotype, Syndromes: a) Autosomal-Down's (Mongolism), Patau's, Edward's and Cri-du-chat b) Sex chromosomal abnormalities in man: Klinefelter's and Turner's syndrome. Inborn errors of metabolism: albinism, phenylketonuria and alkaptonuria	DNB
4	Feb	Sex linked inheritance in human: Colorblindness, haemophilia and hypertrichosis Cytoplasmic inheritance: Kappa particles in Paramoecium Application of genetics: Genetic counseling. Concept of genetic Engineering, Eugenics	DNB

Teaching Plan

2017 - 2018

S. Y. B. Sc. (Zoology)

Term I PAPER I

ANIMAL SYSTEMATICS AND DIVERSITY -III

Sr.No	Month	Topics Covered	Teacher
1	June	Salient features and classification upto classes of the following: Arthropoda :- Crustacea, Arachnida, Insecta, Myriapoda, Onychophora. Mollusca:- Aplacophora, Gastropoda, Pelecypoda, Scaphopoda, Cephalopoda.	SSP
2	July	Echinodermata:- Asteroidea, Ophuroidea, Holothuria, Echinoidea, Crinoidea Study of following with reference to: Arthropoda:- Mouthparts in Insects, Metamorphosis in Insects, Mimicry in Insects, Economic importance of Insects, Larval forms in Crustacea	SSP
3	Aug	Mollusca:- Economic importance of mollusc, Shell and foot modification in mollusc, Torsion and Detorsion in mollusc, Larval forms in molluscs. Echinodermata:- Origin of Echinodermata, Types of Pedicellariae, Larval forms in Echinodermata.	DNB
4	Sep	Study of Starfish : Systematic position, Habit and habitat, External characters, Digestive system, Water vascular system	DNB
5	Oct	Reproductive system, Autotomy and regeneration	DNB

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)
Term I PAPER II
APPLIED ZOOLOGY – I

Sr.No	Month	Topics Covered	Teacher
1	June	Fisheries : An introduction to fisheries and its types (in brief) : Freshwater fisheries, Marine fisheries, Brackish water fisheries. Different types of ponds used in fishery : Nursery pond, Rearing pond, Stock pond, Habit, habitat and culture methods of following freshwater forms : Rohu (Labeo rohita), Catla (Catla catla), Mrigal (Cirrhinus mrigala), Giant prawn (Macrobrachium rosenbergi)	DLT
2	July	Harvesting methods of following marine forms : Harpadon, Mackerel, Lobster, Pearl oyster Crafts and gears in Indian Fishery : Crafts – Catamaran, Machwa, Dinghy, Dug out canoe, Built –up boat Gears – Gill net, Dol net, Purse net, Rampani net, Cast net Fishery byproducts : Fish meal, Fish flour, Liver oil, Ising glass, Fish glue, Fish manure, Fish fin soup, Fish preservation technique : Chilling, Freezing, Salting, Drying, Canning.	DLT
3	Aug	Agricultural Pests and their control : An introduction to Pest, types of pests (agricultural, household, stored grain, structural, veterinary, forestry and nursery) Major insect pests of agricultural importance (Marks of identification, life cycle, nature of damage and control measures) a) Jowar stem borer, b) Red cotton bug, c) Brinjal fruit borer, d) Mango stem borer, e) Pulse beetle, f) Rice weevil.	DNW, NAN
4	Sep	Non insect pest : Rats and Bandicoots, Crabs, Snails, Slugs, Birds and Squirrels Pest control practices in brief : Cultural control, Physical control, Mechanical control, Chemical control, Biological control, Pheromonal control and Concept of IPM in brief	SBP
5	Oct	Plant protection appliances : Rotary duster, Knapsack sprayer, Cynogas Pump. Hazards of pesticides on human and antidotes.	DNW, NAN

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology)

Term II PAPER I

ANIMAL SYSTEMATICS AND DIVERSITY – IV

Sr.No	Month	Topics Covered	Teacher
1	Nov	Salient features of following classes and its subclasses with two examples of each: Reptilia, Aves, Mammalia	SSP
2	Dec	General topics: Poisonous and non-poisonous snakes (Two examples each), Desert adaptations in reptiles in brief. Beak and feet modifications in birds Migration in birds, Aerial adaptations in birds, Egg laying mammals, Aquatic mammals.	SSP
3	Jan	Study of Scoliodon : Systematic position, Habit and habitat, External characters Digestive system, food, feeding and physiology of digestion Respiratory system.	DNB
4	Feb	Blood vascular system. Nervous system and sense organs. Male urinogenital system and female reproductive system	DNB

Teaching Plan 2017 - 2018

S. Y. B. Sc. (Zoology) Term II PAPER II APPLIED ZOOLOGY – II

Sr.No	Month	Topics Covered	Teacher
1	Nov	Apiculture : An introduction to Apiculture, Study of habit, habitat and nesting behavior of <i>Apis dorsata</i> , <i>Apis indica</i> , <i>Apis florae</i> and <i>Apis mellifera</i> . Life cycle, Colony organization and division of labour, Polymorphism. Bee behaviour and bee communication.	DLT
2	Dec	Bee keeping equipments : a) Bee box (Langstroth type) b) Honey extractor, c) Smoker d) Bee-veil e) Gloves f) Hive tool g) Bee Brush h) Queen excluder . Bee keeping and seasonal management. Bee products (collection methods, composition and uses: a) Honey b) Wax c) Bee Venom d) Propolis e) Royal jelly f) Pollen grains Diseases and enemies of Bees: a) Bee diseases – Protozoan, Bacterial, Viral, Fungal – with two examples. b) Bee pests – Wax moth (Greater and Lesser), Wax beetle. c) Bee Enemies – Bee eater, King crow, Wasp, Lizard, Bear, Man. Bee pollination	DLT
3	Jan	Sericulture : An introduction to sericulture, Study of different types of silkworms, their distribution and varieties of silk produced by Mulberry, Tassar, Eri and Muga silkworms in India. External morphology and life cycle of <i>Bombyx mori</i> . Cultivation of mulberry (moriculture): a) Varieties for cultivation, b) Rainfed and irrigated mulberry cultivation – Fertilize schedule, Pruning methods and leaf yield. Harvesting of mulberry: a) Leaf plucking b) Branch cutting c) Whole shoot cutting. Silk worm rearing: a) Types of rearing b) Rearing house c) Rearing techniques d) Important diseases and pests.	SBP
4	Feb	Post harvest processing of cocoons: a) Harvesting and Preparation of cocoons for marketing, b) Stiffling, Sorting, Storage, Deflossing and Riddling, c) Cocoon cooking, Reeling Equipment and Rereeling, Washing and Polishing.	SBP

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER I Animal Systematics and Diversity- V

Sr.No	Month	Topics Covered	Teacher
1	June	Study of Pila globosa with reference to the following: Systematic position, habit, habitat and external characters. Body wall & pallial complex. Functional anatomy: digestive, respiratory, circulatory, excretory, reproductive, nervous system & sense organs	DNB
2	July	Study of the following groups with reference to: Protozoa : locomotion & nutrition. Porifera : skeleton and canal system, Coelenterata : polymorphism and corals. Hemichordata : affinities	DNB
3	Aug	Study of Calotes versicolor with reference to the following : Systematic position, habit, habitat and External characters. Functional Anatomy - Digestive, Circulatory, Excretory, Reproductive, Nervous system and Sense organs	DNB
4	Sep	Comparative study of following topics in vertebrates Integument: Skin of Scoliodon, Frog, Calotes, Pigeon & Rat Heart: Structure of heart of Scoliodon, Frog, Calotes, Pigeon & Rat Kidney: Evolution of Archinephros, Pronephros, Mesonephros, Metanephros Brain: Morphological variation in the different regions of the brain of Scoliodon, Frog, Calotes, Pigeon and Rat/Rabbit	DNB
5	Oct	Study of following groups with reference to Pisces : Dipnoi, Accessory respiratory organs , Electric organs Reptilia : Temporal vacuities, General characters of Rhynchocephalia Mammalia : Dentition in mammals	DNB

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology)
Term I PAPER II
Mammalian Histology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction Definition and scope Tissues: Definitions and review of tissues (location, structure and functions) epithelial, connective, nervous and muscular	SSP
2	July	Histological study of following organs Skin (V.S.) , Tooth (V.S.) , Tongue (C.S.) with reference to mucosa papillae and taste buds Alimentary canal: Basic histological organization with reference to: Oesophagus (T.S.), stomach (T.S.), duodenum (T.S.) Ileum (T.S.) and rectum (T.S.)	SBP
3	Aug	Glands associated with digestive system: Salivary glands – parotid (C.S.), submandibular (C.S.) sublingual(C.S.), liver(C.S.) and pancreas (C.S.) including both exocrine and endocrine components Respiratory organs: Trachea (T.S.) and lung (C.S.) Blood vessels: Artery (T.S.), vein (T.S.) and capillaries (T.S.) Kidney (L.S.), Structure of nephron and juxtaglomerular complex	SSP
4	Sep	Reproductive organs: a) Testis (T.S.) with reference to Seminiferous Tubules and cells of Leydig b) Ovary (C.S.) - primary, secondary and matured (Graffian) follicle, corpus luteum and corpus albicans	SSP
5	Oct	Histology of endocrine glands : Pituitary gland, Thyroid gland, Adrenal gland	SSP

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)
Term I PAPER III
Biological chemistry

Sr.No	Month	Topics Covered	Teacher
1	June	Basic Biochemistry: Bonds –Types: Ionic, covalent, noncovalent bonds (hydrogen, hydrophobic, electrostatic, Van der Waal forces) and their functions in bio molecules. Structure of water molecule (liquid, ice and colloid). Physico-chemical properties of water. Concept of acid and base, pH, Sorenson's scale, derivation of Henderson Hasselbalch equation and its applications. Concept of Buffer-types of buffer, buffering capacity and buffers in biological system (Phosphate, bicarbonate)	NAN
2	July	Carbohydrates: Definition and classification of carbohydrates. Isomerism in carbohydrates- Structural and stereoisomerism. Stereo chemical properties-enantiomeres, anomers, epimerism, mutarotation, racemisation, biological significance and clinical significance-hypoglycemia and hyperglycemia.	NAN
3	Aug	Proteins: Essential and non essential amino acids. Structure and classification of amino acids, Peptide bond, types of proteins, protein structures (primary, secondary, tertiary and quaternary structures with suitable example), bonds responsible for protein structures and Biological significance of proteins	NAN
4	Sep	Enzymes: Classification and properties of enzymes. Regulatory and non regulatory enzymes. Enzyme kinetics, MM equation and its importance and LB plot. Reversible and irreversible enzyme inhibition. Factors influencing enzyme activity (pH, temperature, substrate concentration, enzyme concentration). Introduction of isoenzymes, allosteric enzymes, immobilized enzymes and ribozymes. Clinical significance of enzymes- PKU and AKU	NAN
5	Oct	Lipids: Introduction, classification and chemistry Clinical significance (obesity, atherosclerosis, myocardial infarction) Biological significance of lipids	NAN

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology)

Term I PAPER IV

Environmental Biology and Toxicology

Sr.No	Month	Topics Covered	Teacher
1	June	Environmental Biology Introduction- Definition, basic concepts and scope The Ecosystem Definition, abiotic and biotic components and their interrelationship, Energy flow in ecosystem and flow models Major Ecosystems: (a) natural ecosystem: e.g. fresh water, forest (b) artificial ecosystem: e.g. cropland, Food chain in ecosystem and food web, Ecological pyramids	DLT
2	July	Environmental Pollution: Definition and types of pollution, Pollutants, types of pollutants (metallic, gaseous, acids, alkalis, biocides) Air pollution: Definition, sources of air pollution and their effects, Air pollution and its relevance with the following, Acid rain Greenhouse effect, Ozone layer depletion, Water pollution: definition, sources of water pollution and their effects on ecosystem. Community waste with reference to following: Sewage, Industrial wastes, Agricultural wastes, Land / Soil pollution: definition, sources of land / soil pollution and their effects, Noise pollution: definition, sources of noise pollution and their effects and control measures	DNB
3	Aug	Environment and Development Bioindicators and environmental monitoring, Environmental challenges in India: land degradation, population explosion, urbanization and industrialization Natural Resources and Conservation: Renewable and non-renewable resources, Soil conservation, Forest conservation, Energy sources: conventional and non-conventional	SSP
4	Sep	Wildlife Management: Definition, causes of wildlife depletion, Importance of wildlife management in India, Endangered species, vulnerable species, rare species and threatened species, Wild life conservation Toxicants and Toxicity: Definition of toxicology, scope and branches, Types of toxicants Factors influencing toxicity (pH, temperature, reproductive status, age, physiological state), Dose, LD50, LC50	NAN
5	Oct	Toxicants of Public Health and Hazards: Pesticides, heavy metals, fertilizers, food additives and radioactive substances	DNW

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)
Term I PAPER V
Parasitology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction: Scope and branches of Parasitology Definition: host, parasite, vector, commensalisms, mutualism and parasitism Types of parasites: ectoparasites, endoparasites and their subtypes 3	DNW
2	July	Types of hosts: intermediate and definitive, paratenic, reservoir Host-Parasite relationship: Host specificity- definition, structural specificity, physiological specificity and ecological specificity Study of the following parasites with reference to habit, habitat, Life cycle, Mode of Infection, pathogenicity and control measures - Plasmodium vivax, Entamoeba histolytica,	DNW
3	Aug	Ascaris lumbricoides and Taenia solium Study of the following parasites with reference to morphology, life cycle, pathogenicity and control measures: Head louse, Tick, Mite (Sarcoptes scabiei) Parasitological significance of Zoonosis: Bird flu, Rabies and Toxoplasmosis	DNW
4	Sep	Control measures of arthropod vectors of human diseases: Malaria (Anopheles stephensi, A. culicifacies), Dengue, Haemorrhagic fever (Aedes aegypti, A. albopictus), Filariasis (Culex pipiens fatigans)	DNW
5	Oct	Epidemic diseases: Typhoid, Cholera, Small pox; their occurrence and eradication programmes	DNW

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term I PAPER VI b) Cell Biology

Sr.No	Month	Topics Covered	Teacher
1	June	Introduction to Cell biology: Definition and scope, Prokaryotic and eukaryotic cell: size, shape and structure. Plasma membrane: Unit membrane concept, Models: Lipid membrane, Protein-Lipid (Danielli-Davson) and Fluid Mosaic, Membrane receptors, Membrane transport: Passive and Active Exocytosis and Endocytosis (Phagocytosis and Pinocytosis)	DLT
2	July	Endoplasmic reticulum: Occurrence and ultrastructure, Type: smooth and rough, Functions Golgi complex: Origin, occurrence and morphology, Ultrastructure and functions	DLT
3	Aug	Lysosomes: Origin, occurrence and morphology, Ultrastructure, polymorphism and functions Mitochondria: Origin, occurrence and morphology, Ultrastructure and functions (explanation of the cycles not expected)	DLT
4	Sep	Nucleus: Shape, Size, number and position, Ultrastructure of nuclear membrane and pore complex, Nucleolus: general organization, chemical composition and functions, Nuclear sap/ nuclear matrix Nucleocytoplasmic interactions Cytoskeleton: Microfilaments: location, ultrastructure, biochemical composition and functions, Intermediate Filament: location, ultrastructure, biochemical composition and functions, Microtubules: location, ultrastructure, biochemical composition and functions Cell cycle and cell division: Various phases of cell cycle, mitosis, meiosis & role of centriole in the cell division	DLT

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)
Term II PAPER I
Biological Techniques

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction to biological techniques Solution/strengths of chemicals: percentage, normality, molarity, molality, osmolarity, osmolality, ppm, ppb, Separation techniques: principle and applications, techniques related to isolation, purification and characterization of bio molecules Chromatography (paper, ion-exchange), gel filtration Electrophoresis-(agarose, polyacrylamide), Ultracentrifugation Colorimetry and spectroscopy Haematological Techniques: Blood cell count –Total count of RBCs, WBCs and Differential count of WBCs and their significance. Examination of bone marrow. Hb%, bleeding time, clotting time and their significance	DNW
2	Dec	Microscopy: simple, compound, phase contrast, electron – their principle & working Micrometry Camera Lucida Micro technique: Procurement of tissues and precautions to be taken to avoid tissue damage during procurement, Fixatives: Classification of fixatives and importance of fixation of tissues, Methods of fixation, Dehydration, clearing, impregnation and block making: Clearing and alcoholising agents, Clearing and dealcoholisation, Impregnation and Embedding: Types of embedding media, methods of embedding and block making. Comments on hardening of paraffin Microtomes and Knives: Types of microtomes, Types of microtome knives	DNW
3	Jan	Section cutting: Microtomy- steps and precautions, common faults in section cutting reasons & remedies. Mounting and spreading of ribbons Stains and Staining Classification of stains, Methods and types of staining, General procedure for staining of sections, Vital Stains, Mounting and labeling of sections: Classification of mounting media, refractive indices of mounting media	DNW
4	Feb	Histochemical staining: Demonstration Carbohydrates (PAS technique), Demonstration of Nucleic acid (Feulgen Reaction)	DNW

Teaching Plan

2017 - 2018

T. Y. B. Sc. (Zoology)

Term II PAPER II

Mammalian Physiology & Endocrinology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction: Definition and scope 1 Nutrition: Concept of nutrition and energy requirements, Physiology of digestion: digestive enzymes and their actions- salivary, gastric and intestinal digestion. Role of liver and pancreas in digestion Circulation : Cardiac Cycle- systole, diastole and pacemakers, Cardiac output and blood pressure, Definitions and significance of electrocardiogram, colour doppler, angioplasty, angiography, angina pectoris, and coronary bypass	DLT
2	Dec	Respiration: Definition and types- Pulmonary and tissue respiration, Mechanism of transport of gases (a) Transport of Oxygen- Oxyhaemoglobin formation, (b) Transport of Carbon-dioxide, (c) Respiratory Quotient and BMR Excretion: Physiology of Urine formation- ultrafiltration, reabsorption, tubular secretion, Counter-Current Multiplier theory for urine concentration Role of ADH, and Renin angiotensin system, Definitions and clinical significance of- renal failure, renal calculi, dialysis	DLT
3	Jan	Muscles: Ultrastructure of striated muscle, Sliding filament theory of muscle contraction – physical and chemical changes, Response of muscles to stimulation- simple muscle twitch, muscle fatigue and rigor mortis Nervous Excitation: Origin and conduction of nerve impulse, saltatory conduction, Synapse- ultrastructure and transmission of nerve impulse Definitions/concepts: impulse, stimulation, conduction, response, EEG, epilepsy	DLT
4	Feb	Reproduction: Reproductive cycles with hormonal control- estrous and menstrual, Hormonal control of pregnancy, Hormonal control of parturition and lactation, Hormonal control of male reproduction Endocrinology: Introduction, Mechanism of hormone action, Endocrine disorders: gigantism, acromegaly, dwarfism, diabetes insipidus, goiter, cretinism, myxedema, rickets, Addison Disease, Cushing's syndrome	DLT

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology) Term II PAPER III Genetics and Molecular Biology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Linkage, crossing over and molecular basis of recombination 5 Gene Mutation Definition, Types of mutations: spontaneous, induced, somatic, gametic, forward, reverse. Types of point mutation- deletion, insertion, substitution, transversion, transition, Mutagenic agents. a) UV radiation and ionising radiation, b) Base analogs, alkylating and intercalating agents	DNB
2	Dec	Population Genetics Basic Concepts in population genetics: Mendelian population, gene pool, gene frequency, chance mating (Panmictic mating), Hardy Weinberg law and its equilibrium, Molecular Biology, DNA as genetic material- evidences (Griffith's, Avery et al and Hershey and Chase experiment), RNA as genetic material-TMV, Chromatin-Heterochromatin, Euchromatin, histones, nucleosome arrangement, packaging of DNA	DNB
3	Jan	Central Dogma of Molecular Biology DNA Replication-Semiconservative (Messelson and Stahl experiment) Mechanism in prokaryotes and eukaryotes Transcription- Transcriptional unit, RNA polymerase, transcription in prokaryotes and eukaryotes, post transcriptional modification (splicing- mRNA, modifications at 3' and 5' end), Translation- Genetic code, properties of genetic code, ribosome structure [prokaryotes and eukaryotes], protein synthesis-initiation, elongation, termination and concept of post translational modification (glycosylation), Concept of operon - regulation of gene action, Lac operon, Trp operon	DNB
4	Feb	Recombinant DNA Technology- Introduction, restriction enzymes, cloning vector, PCR (polymerase chain reaction), DNA finger printing	DNB

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology)
Term II PAPER IV
Organic Evolution

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction. Origin of life, Origin of eukaryotic cell (Origin of mitochondria , plastids & symbionts). Evidences in favour of organic evolution: Evidences from: anatomy, embryology, geographical distribution, palaentology, physiology, biochemistry, genetics and molecular biology	NAN
2	Dec	Theories of organic evolution Lamarckism, Darwinism and Neo Darwinism, Mutation Theory, Modern Synthetic theory. Isolation: Isolating mechanism, Classification of isolating mechanism: Pre-zygotic and post-zygotic Speciation: Types of speciation(Allopatric & Sympatric), Mechanism of speciation Patterns of speciation, Factors influencing speciation	NAN
3	Jan	Geological Time Scale Animal Distribution: Methods of distribution, Classification of animal distribution, Patterns of animal distribution, Factors affecting distribution Antiquity of Man: Evolution of anthropoids including man (Kenyapithecus to Homo sapiens)	NAN
4	Feb	Zoogeographical Realms: With reference to fauna	NAN

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology)
Term II PAPER V
General Embryology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Introduction: Definition and scope, Theories of preformation, pangenesis, epigenesis, axial gradient and germ plasm Concepts in Developmental Biology: Growth, differentiation, dedifferentiation, cell determination, cell communication, morphogenesis, induction and regeneration Gametogenesis: General aspects and origin of germ cells, Sperm: general structure, mention variations with reference to Insect, Amphioxus, Frog, Bird and Human, Ultra structure of typical sperm. (entire, T.S. through head, middle piece and tail), Spermatogenesis: phases & spermiogenesis (nuclear and cytoplasmic changes), Oogenesis phases: growth phase- pre-vitellogenesis, vitellogenesis and post vitellogenesis	SSP
2	Dec	Oocyte maturation: role of MPF (maturation promotion factor) Ovum: general structure, Egg membranes: primary, secondary and tertiary, Types of eggs Fertilization: Concept and types, Attraction of gametes: sperm activation, chemotaxis (fertilizin and antifertilizin as enzymes and gamones as hormones), Sperm penetration: acrosome reaction, capacitation & decapacitation, Activation of ovum: fertilization cone, polyspermy prevention: fast block, (fertilization potential) & slow block (cortical reaction) & perivitelline space, fertilization membrane Amphimixis, Significance of fertilization	SSP
3	Jan	Cleavage Mechanism, Planes and symmetry, Patterns / Types Significance Blastula: Definition and types Gastrulation: Concept, Basic cell movements in gastrulation: epiboly, emboly, convergence, invagination, ingression & involution (with reference to frog), Organizer: primary, secondary, tertiary Organogenesis: cell differentiation, tissue differentiation & organ formation up to rudimentary stage	SSP
4	Feb	Chick Embryology: Structure of Hen's egg, Fertilization and cleavage, Gastrulation: Formation of primitive endoderm, Primitive streak development, Head process and regression of Primitive streak, Development of nervous system up to 48 hours, Development of heart and blood vessels up to 48 hours, Development of digestive system Extra embryonic membranes	SSP

Teaching Plan 2017 - 2018

T. Y. B. Sc. (Zoology)
Term II PAPER VI
b) Medical Entomology

Sr.No	Month	Topics Covered	Teacher
1	Nov	Fundamentals of Agricultural, Forest, Medical and Veterinary Entomology Introduction to medical entomology Morphology and anatomy of insects, Veterinary entomology- Insects as disease spreading agents in general	DLT
2	Dec	Insects as social groups- Definition, intraspecific and interspecific relationships among insects Social organization in wasps and termites, Significance of social organizations	DLT
3	Jan	House hold insects in relation to human- Cockroach, House cricket, Silver fish, Carpet beetles, Furniture beetles, Ants. Study of following insects as causing agents of human diseases- their classification up to family, appearance, habit, brief life history, distribution, diseases caused and control measures- Mosquito, Flea, House fly, Bed bug	DLT
4	Feb	Louse, Tick, Mite, Blister beetle	DLT

K.T.S.P. Mandal'S

HUTATMA RAJGURU MAHAVIDYALAYA ,

RAJGURUNAGAR

DEPARTMENT OF MATHEMATICS

Workload

Academic Year 2017-18

Class	F.Y.B.Sc.		S.Y.B.Sc.		F.Y.B.Cs.		S.Y.B.Cs.		S.Y. B.B.A.	Total
Paper	Theory	Practical	Theory	Practical	Theory	Practical	Theor y	Practical	Theory	Theory
Grant	M1 = 3 M2 = 3	1*4=4	M1 = 4 M2 = 4	1*4 = 4	--	--	--	--	--	--
Grant Total	06	04	08	04	--	--	--	--	--	--
Non Grant	--	2*4 =08	--	--	M1 = 3 M2 = 3	1*4 = 4	M1 = 4 M2 = 4	2*4 = 8	4	8
Non Grant Total	--	08	--	--	06	04	08	08	04	04
Total	18		12		10		16		04	

Individual Workload Distribution

Sr. No.	Name	Workload (Period)
1.	Prof. Wayal R.M.	19
2.	Prof. Telang G. S..	23
3.	Prof. Karle S. N.	22
Total		64

Distribution of Workload

Sr.No	Class	Subject	Strength	Workload Theory/ Practical	Name of Teacher	Assigned workload
1.	F.Y.B.Sc.	Algebra & Geometry	110	03	Wayal R. M./ Telang G. S.	03
		Calculus & Diff. Eq.	110	03	Karle S.N.	03
		Practical	110	3 Batches * 4 = 12	Wayal R. M./ Kawade S.S. (1 Batch) Telang G. S. (2 Batch)	04 08
2.	S.Y.B.Sc.	Multi. Calculus, Linear Algebra	80	04	Wayal R. M./ Karle S.N.	04
		Laplace Transform, Numerical analysis	80	04	Wayal R. M./ Kawade S.S.	04
		Practical	80	1 Batches * 4 = 4	Wayal R. M./ Kawade S.S. (1 Batch)	04
3.	F.Y.B.Cs.	Discrete Maths.	65	03	Telang G. S.	03
		Algebra & Calculus	65	03	Karle S.N.	03
		Practical	65	1 Batches * 4 = 4	Karle S.N. (1 Batch) Telang G. S. (1 Batch)	04
4.	S.Y.B.Cs.	Applied Algebra , Computational Geometry	36	04	Karle S.N./ Telang G. S.	04
		Numerical Methods , operational Research	36	04	Kawade S.S.	04
		Practical	36	2 Batches * 4 = 8	Karle S.N.	08
5.	S.Y.B.B.A.	Business Mathematics	38	04	Karle S.N.	04
6.	F.Y.B.Com	Maths & Stat.	120	4*1=4	Telang G. S./ Kawade S.S.	08

K.T.S.P. MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA , RAJGURUNAGAR
DEPARTMENT OF MATHEMATICS

TIME TABLE

Academic Year 2017-18

SEM-I

Prof. Wayal R. M.
Work Load = 19

Total

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.
9.20-10.10	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	-	-	-
10.10-11.00	-	-	-	-	-	-
11.00-11.50	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.
12.30-3.30	-	-	F.Y.B.Sc.	-	-	-

Prof. Telang G.S.
Work Load = 23

Total

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	S.Y.B.Cs.	-	-	-	-	S.Y.B.Cs.
9.20-10.10	-	-	-	-	-	-
10.10-11.00	F.Y. B.Com (C)	F.Y. B.Com (C)	F.Y. B.Com (C)	F.Y. B.Com (C)	-	F.Y.B.Cs.
11.00-11.50	-	F.Y.B.Cs.	-	-	F.Y.B.Cs.	-
11.50-12.30	-	-	-	S.Y.B.Cs.	S.Y.B.Cs.	-
12.30-3.30	F.Y.B.Sc.	F.Y.B.Sc.	-	F.Y.B.Cs.	-	-

Prof. Karle S.N.
Work Load = 22

Total

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	S.Y.B.B.A(C.A.)	-	S.Y.B.B.A	S.Y.B.B.A	-	S.Y.B.B.A

			(C.A.)	(C.A.)		(C.A.)
9.20-10.10	-	F.Y.B.Cs.	-	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.
10.10-1.00	F.Y.B.Cs.	S.Y.B.Cs.	-	-	-	-
11.00-1.50	S.Y.B.Cs.	-	S.Y.B.Cs.	F.Y.B.Cs.	S.Y.B.Cs.	-
12.30-3.30	-	-	-	S.Y.B.Cs.-A PRACTICAL	S.Y.B.Cs. B PRACTICAL	-

SEM-II

Prof. Kawade S.S.

Total

Work Load = 20

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	S.Y.B.Sc.	S.Y.B.Sc.	-	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Cs.
9.20-10.10	-	-	-	-	-	-
10.10-11.00	F.Y. B.Com (C)	F.Y. B.Com (C)	F.Y. B.Com (C)	F.Y. B.Com (C)	-	-
11.00-11.50	S.Y.B.Sc.	S.Y.B.Sc.	S.Y.B.Sc.		S.Y.B.Cs.	S.Y.B.Sc.
11.50-12.30	-	-	-	S.Y.B.Cs.	S.Y.B.Cs.	-
12.30-3.30	-	-	F.Y.B.Sc.	-	-	-

Prof. Telang G.S.

Total

Work Load = 22

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	S.Y.B.Cs.	-	-	-	-	S.Y.B.Cs.
9.20-10.10	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.	-	-	-
10.10-11.00	-	S.Y.B.Cs.	-	-	-	F.Y.B.Cs.
11.00-11.50	-	-	S.Y.B.Cs.	F.Y.B.Cs.	F.Y.B.Cs.	-
11.50-12.30	-	-	-	-	-	-
12.30-3.30	F.Y.B.Sc.	F.Y.B.Sc.	-	F.Y.B.Cs.	-	-

Prof. Karle S.N.
Work Load = 18

Total

Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.20-9.10	-	-	S.Y.B.Sc.	-	-	S.Y.B.Sc.
9.20-10.10	-	F.Y.B.Cs.	-	F.Y.B.Sc.	F.Y.B.Sc.	F.Y.B.Sc.
10.10-1.00	F.Y.B.Cs.	-	-	-	-	-
11.00-11.50	-	F.Y.B.Cs.	-	S.Y.B.Sc.	S.Y.B.Sc.	-
12.30-3.30	-	-	-	S.Y.B.Cs.-A PRACTICAL	S.Y.B.Cs. B PRACTICAL	-

KTSP MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA, RAJGURUNAGAR
 (Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Workload

ACADEMIC YEAR—2017-18 (SEM II)

Class	F.Y. BBA(CA)		S.Y. BBA(CA)		T.Y. BBA(CA)		TOTAL
Paper	Theory	Pract.	Theory	Pract.	Theory	Pract.	
Non Grant	20	24	20	16	16	20	116hrs
Total Workload for Non Grant	20	24	20	16	16	20	
Total	20	24	20	16	16	20	116hrs

Head of Department
BBA(CA)

KTSP MANDAL'S
HUTATMA RAJGURU MAHAVIDYALYA,
RAJGURUNAGAR, TAL – KHED, DIST – PUNE.
(Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Individual Workload Distribution Academic Year 2017-18 (SEM II)

Individual Workload				
Sr. No.	Name	Workload (No. of Lectures Allotted per Week)		
		Theory	Practical	Total
1	Prof. V.A.Sandbhor.	12	12	24
2	Prof. V.V.Wadekar.	16	08	24
3	Prof. P.D.Tanpure.	08	16	24
4	Prof.V.R.Pande.	08	16	24
5	Prof.T.B Vehale.	08	----	08
6	Prof.V.M.Wayal	04	----	04
7	Prof. N.S.Shah	----	08	08
	Total Periods	116		

Head of Department
BBA(CA)

K. T. S. P MANDAL'S
HUTATMA RAJGURU MAHAVIDYALYA,

RAJGURUNAGAR, TAL – KHED, DIST – PUNE.

(Internal Quality Assurance Cell)

DEPARTMENT OF BBA(CA)

Departmental Workload For Academic Year 2017-18 (SEM II)

Class:FYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	FY BBA (CA)	Procedure Oriented Programming Using C	68	4	4+4	12	Prof. V.R.Pande.	12
2		Database Management System	68	4	4+4	12	Prof. V.V.Wadekar	12
3		Organizational Behavior	68	4	----	04	Prof. T.B.Vehale.	04
4		Computer Application in Statistics	68	4	4+4	12	Prof.V.M.Wayal	12
5		E-Commerce Concepts	68	4	----	04	Prof. V.V.Wadekar	04
		Total		20	24	44		44
Class:SYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	SY BBA (CA)	Object Oriented Programming using C++	42	4	4+4	12	Prof. P.D.Tanpure	12
2		Programming in Visual Basic	42	4	4+4	12	Prof. V.A.Sandbhor	12
3		Computer Networking	42	4	----	04	Prof. V.A.Sandbhor	04

4		Enterprise Resource Planning	42	4	----	04	Prof. V.V.Wadekar	04
5		Human Resource Management	42	4	----	04	Prof. T.B.Vehale.	04
		Total		20	16	36		36
Class:TYBBA(CA)								
<u>S. N.</u>	<u>Class</u>	<u>Subject</u>	<u>Strength</u>	<u>Workload (Lectures)</u>			<u>Subject wise Details</u>	
				<u>Theory</u>	<u>Practical</u>	<u>Total</u>	<u>Name of Teacher</u>	<u>Assigned Work load</u>
1	TY BBA (CA)	Advanced Web Technology	41	4	4+4	12	Prof. V.R.Pande.	12
2		Advance Java	41	4	4+4	12	Prof. P.D.Tanpure	12
3		Recent Trends in IT	41	4	----	04	Prof. V.A.Sandbhor	04
4		Software Testing	41	4	----	04	Prof. V.V.Wadekar	04
5		Software Project – II [Java/ Dot net Technology]	41	----	4	04	Prof. V.A.Sandbhor	04
		Total		16	20	36		36

Head of Department
BBA(CA)

KTSP MANDAL'S
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(Internal Quality Assurance Cell)

Name of Department: - BBA(CA)

Time Table For Academic Year 2017-2018

Prof. Prof. V.A.Sandbhor.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10	VB B1	VB		VB B2		
2	9.20 - 10.10		VB				RTIT
3	10.10 - 11.00	VB	RTIT			VB	RTIT
4	11.00 - 11.50			CN		RTIT	CN
5	11.50 - 12.40		PROJECT	CN		CN	PROJECT
6	12.40 – 2.00			PROJECT		PROJECT	

Prof. Prof. V.V.Wadekar.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10	DBMS	DBMS				E-COM
2	9.20 - 10.10	ST		DBMS	ST	ST	
3	10.10 - 11.00		E-COM	ERP			DBMS
4	11.00 - 11.50	E-COM	ST	DBMS B2	E-COM	ERP	DBMS B2
5	11.50 - 12.40	ERP	ERP				
6	12.40 – 2.00						

Prof. Prof. P.D.Tanpure.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10		ADV JAVA B2	C++	ADV JAVA	C++ B1	C++ B2
2	9.20 - 10.10						
3	10.10 - 11.00	ADV JAVA B1			C++	ADV JAVA	
4	11.00 - 11.50		C++	ADV JAVA	C++		ADV JAVA
5	11.50 - 12.40						

Prof. Prof.V.R.Pande.

(Total Workload 24)

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	8.20 - 9.10	AWT		AWT B1	C PROG.	AWT	AWT
2	9.20 - 10.10	C PROG.					C PROG.
3	10.10 - 11.00	C PROG.		AWT	AWT B2		
4	11.00 - 11.50		C PROG. B1			C PROG. B2	
5	11.50 - 12.40						
6	12.40 - 1.30						

Head of Department
BBA(CA)

12/17
 apartmental meeting held on 12/17
 10:00 a.m. for Distribution of
 work based on

Wages a.m. - F.Y. B.Sc. - M-I
 S.Y. B.Sc. - M-II

Telang G.S. - F.Y. B.Sc. - M-I
 S.Y. B.Sc. - M-II
 F.Y. B.Sc. - C

Karla S.N. - F.Y. B.Sc. - M-I
 F.Y. B.Sc. - M-II
 S.Y. B.Sc. - M-I
 S.Y. B.Sc. - A

Wages R.M. - ~~Wages~~
 Karla S.N. - ~~Wages~~
 Telang G.S. - ~~Telang~~



**SHED TALUKA SHIMAN PRAVAJAK MANDAL'S
HUTATMA RAJGURU MAHAVIDYALAYA**

HISTORY DEPARTMENT

TIME TABLE 2018-2019

TIME	MON	TUE	WED	THU	FRI
07.30 TO 08.30	1. VYAS 02. WIKALAKA CENTURY (1914-1992)	1. VYAKHITI 02. DASHARATHI TAMPA (1506-1507)	1. VYAKHITI 02. MUDRA NIKHILATI TAMPA	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)	
08.30 TO 09.10	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. WIKALAKA CENTURY (1914-1992) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. WIKALAKA CENTURY (1914-1992) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. WIKALAKA CENTURY (1914-1992) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. WIKALAKA CENTURY (1914-1992) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)
09.30 TO 10.10	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. DASHARATHI TAMPA (1506-1507) 03. VYAKHITI 04. HISTORY OF HINDU NAGARAJA (1914-1992)	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)		
10.30 TO 11.10	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)	1. VYAKHITI 02. DASHARATHI TAMPA (1506-1507)	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)	1. VYAKHITI 02. CHANDRASEKHAR TAMPA (1904-1971)
11.30 TO 12.10					



KHEDI TALUKA SHIKSHAN PRASARAK MANDAL
HUTATMA RAJGURU MAHAVIDYALAYA

HISTORY DEPARTMENT

WORK LOAD 2018-2019

Sl. No.	CLASS	LECTURE PER WEEK
1	F.Y.B.A. (A) (01)	04
2	F.Y.B.A. (B) (01)	04
3	F.Y.B.A. (C) (01)	04
4	S.Y.B.A. (02)	04
5	S.Y.B.A. (01)	04
6	S.Y.B.A. (02)	04
7	T.Y.B.A. (03)	04
TOTAL		28

DISTRIBUTION

INDIVIDUAL WORKLOAD

Sl. No.	NAME	WORKLOAD (Periods)
1	LANDAPATHI K. J.	18
2	CHAUHAN G. V.	10
	Total (Downloaded)	28
	Remaining Periods	00
	Total Periods	28

Prof. V.D.Kulkarni,
Dept of Physics
HutatmaRajguruMahavidyalaya,
Rajgurunagar (Pune)

Syllabus Completion Report (Sem-I)

(2017-18)

T.Y.B.Sc. PH 333 Classical Mechanics

Sr. No.	Completed Topics	Dates
01	1. Mechanics of system of particles Introduction –Newton's laws	01/07/2017 To 15/07/2017
02	Applications of Newton's laws of motionProjectile motion in various medium,	
03	Rocket motion,	
04	Motion of a charged particle in constant electric, magnetic and electromagnetic field.	
05	General features of motion, equation of orbit, Deduction of Kepler's laws of planetary motion, Orbits of artificial satellite, Problems.	
06	System of particles, Centre of mass, Conservation of linear momentum, angular momentum,	
07	Energy of system of particles (statements only) Problems	
18	4. Langrangian and Hamiltonian formulation 1 Limitations of Newtonian formulation	16/07/2017 To 30/07/2017
19	Types of constraints, degrees of freedom, generalized coordinates, configuration space	
20	D' Alembert's principle of virtual work	
21	Langrangian equation from D' Alembert's principle, cyclic coordinates,problems	
22	Phase space, Hamiltonian's equations State of Systems, Ensembles	

Prof. V.D.Kulkarni

Syllabus Completion Report (Sem-I)

(2017-18)

T.Y.B.Sc. PH335: Computational Physics

Sr. No.	Completed Topics	Month
01	1. Concepts of programming: Definition and Properties of algorithms, Algorithm development,	1/08/2017 To 08/08/2017
02	Algorithm development, Flow charts- symbols and simple flowcharts	
03	Flow charts and Algorithms for Kinematic equations, Free fall, Equation of state, Factorial of a number.	
04	Types of programming language: Lower, middle and higher level languages.	
05	1. C Programming Structure of C program, Character set, key words,	09/08/2017 To 25/08/2017
06	Constants and variables, Variable names,	
07	Data types and their declarations, Symbolic Constants.	
08	Input/output functions: scanf (), printf (), getchar (), putchar (), getch (), gets (), puts ().	
09	Operators and Expressions: Arithmetic Operators, Relational Operators, Logical Operators,	
10	Assignment Operators, Conditional Operator. Formatted input/output	
11	Control statements: If, if else, while, do while for loop, nested control structures	
12	(nested if, nested loops), break, continue, switch- case statement, goto statement.	
13	Use of Library functions: e.g. mathematical, trigonometric, graphics.	
14	3. Arrays and Pointers in C Arrays: 1-D, 2-D and String	

		25/08/2017 To 30/08/2017
15	Examples: Arranging numbers in descending and ascending order,	
16	Sum of matrices, multiplication of matrices.	
17	Concept of Pointers	1/09/2017 To 7/09/2017
18	4. User Defined Function in C User defined functions: Definitions and declaration of function, function prototype.	
19	Passing arguments (Call by value, Call by reference).	
20	Storage Classes: Auto, External, Static, Register variables.	
21	5. Graphics in C: Some simple graphic commands	8/09/2017 To 15/09/2017
	- Line, Circle, Arc, Ellipse, Bar., Problems	
22	6. Computational Physics: Errors in Computation: Inherent errors in storing numbers due to finite bit representation to use in Computer, Truncation error, round off errors	16/09/2017 to till term end (05/10/2017)
23	Iterative methods: Discussion of algorithm and flowcharts and writing C programs for finding	
24	single root of equation using bi-section method, Newton Raphson method.	
25	Discussion of algorithm and flowcharts and writing C program for trapezoidal rule and Simpson's 1/3rd rule	

Prof. V.D.Kulkarni

Prof. V.D.Kulkarni,
Dept of Physics
HutatmaRajguruMahavidyalaya,
Rajgurunagar (Pune)

Syllabus Completion Report (2017-18)

T.Y.B.Sc. (Sem-II)

Thermodynamics and Statistical Physics (PH-343)

Sr. No.	Completed Topics	Dates
01	Ch-1 - Kinetic Theory of gases Assumptions of Kinetic Theory of gases, Mean free path	23/11/2017 24/11/2017
02	Transport Phenomena, Viscosity	25/11/17,29/11/17
03	Thermal conductivity and diffusion	30/11/17,6/12/17
04	Problems	9/12/17,13/12/17
05	Ch-2- Maxwell's relations and applications Thermodynamic functions	14/12/17,15/12/17
06	Enthalpy, Entropy, Internal Energy, Helmholtz Functions	20/12/17,21/12/17
07	Maxwell's relations	22/12/17,23/12/17
08	First and Second TdS equations	29/12/17,30/12/17
09	Joule – Thomson's effect, Problems	5/1/18,10/1/18
10	Ch-3- Elementary Concepts of Statistics Probability distributions, functions	11/1/18,12/1/18 13/1/18
11	Random Walk Problem and Binomial distribution	17/1/18,18/1/18
12	Simple Random Problem	19/1/18,20/1/18
13	Probability distribution for large N	24/1/18,25/1/18
14	Gaussian Probability distribution and Problems	1/2/18,8/2/18
15	Ch-4- Statistical distribution of system of particles State of Systems, Ensembles	10/2/18,12/2/18
16	Basic Postulates, Probability Calculations	14/2/18,15/2/18
17	Behavior of density of states	20/2/18,22/2/18
18	Thermal. Mechanical Interactions, Problems	23/2/18,24/2/18

Sr. No.	Completed Topics	Dates
19	Ch-5- Statistical Ensembles Micro canonical Ensembles, Canonical Ensembles	26/2/18,27/2/18
20	Applications of Canonical Ensembles	1/3/18
21	Molecules in ideal gas, Mean Values in Canonical Ensembles, Problems	6/3/18,7/3/18
22	Ch-6-Quantum States Quantum distribution function	8/3/18
23	Maxwell – Boltzman Statistics, Bose – Einstein Statistics	9/3/18,12/3/18
24	Fermi – Dirac Statistics, Comparisions,Problems	13/3/18

- 1) T.Y.B.Sc.:- Sixteen (16) Practical of **Three** batches completed in Academic Year 2017-2018.
- 2) Projects of T.Y.B.Sc Students.:- Projects of Five (5) Students of T.Y.B.Sc. completed in Academic Year 2017-2018.

Dr. V.D.Kulkarni

Syllabus Completion Report

T.Y.B.Sc. Physics (Sem III)

Year: 2017-2018 (I)

PH-332: Solid State Physics

Teacher: A.B.Kanawade

Chapter No.	Month	Contents	Remarks
1	Jul 2017	The Crystalline State (11 L) Lattice, Basis, Translational vectors, Primitive unit cell, Symmetry operations, Different types of lattices-2D and 3D (Bravais lattices) ,Miller indices, Inter planer distances, SC, BCC and FCC structures, Packing fraction, Crystal structures NaCl, diamond, CsCl, ZnS, HCP, Concept of reciprocal lattice and its properties with proof.Problems	
2	Jul/Aug 2017	X ray Diffraction and Other Characterization Techniques (13L) Introduction, Crystal as a grating, Bragg's law and Bragg's Diffraction condition indirect and reciprocal lattice, Ewald's construction, Experimental methods of X-ray diffraction: Laue method, Rotating Crystal method, Powder(Debye Scherrer) method, Analysis of cubic structure by powder method, Characterization Techniques: Thermal gravimetric analysis(TGA), UV-visible spectroscopy, Electron microscopy(SEM), Problems	
3	Aug/Sep 2017	Free Electron and Band Theory of Metals (13 L) Free Electron model, Energy levels and Density of orbital in 1D and 3D, Bloch theorem (statement only), Nearly free electron model, Fermi energy, Fermi level, Hall Effect, Origin of energy gap, Energy bands in Solids, Effective mass of electron (with derivation), Distinction between metal, semiconductor and insulator, Problems	
4	Sep/Oct 2017	Magnetism (11 L) Diamagnetism, Langevin theory of Diamagnetism, Application of diamagnetic material: (Superconductor)Occurrence of Superconductivity, Critical magnetic field and Meissner effect, Paramagnetism, Langevin theory of Para magnetism, ferromagnetism, ferromagnetic domains, Hysteresis, Curie temperature. Ferromagnetism, Ferrites and its applications, antiferromagnetism, Neel temperature, Problems	

The syllabus of the course has been completed as shown.

Syllabus Completion Report

S.Y.B.Sc. Physics (Sem I)

Year: 2017-2018 (I)

Electronics (Physics Paper II)

Teacher: A.B.Kanawade

Chapter No.	Month	Contents	Remarks
1	Jul 2017	NETWORK THEOREMS (06L) 1.1 Kirchhoff's laws (revision) 1.2 Voltage and Current divider circuits 1.3 Thevenin's theorem 1.4 Norton's theorem 1.5 Super-position theorem 1.6 Maximum power transfer theorem (All theorems 1.3 to 1.6 with proof) 1.7 Problems.	
2	Jul/Aug 2017	STUDY OF TRANSISTOR (14L) 2.1) BIJUNCTION TRANSISTOR 1. Revision of bipolar junction transistor, types, symbols and basic action 2. Configurations (Common Base, Common Emitter & Common Collector) 3. Current gain factors (α & β) and their relations. 4. Input, output and transfer characteristics of CE, CB & CC configurations. 5. Biasing methods: Base bias, Emitter feedback and voltage divider 6. DC load lines (CE), Operating point (Q point) 7. Transistor as a switch 8. Problems. 2.2) UNI- JUNCTION TRANSISTOR 1. Symbol, types, construction, working principle, I-V characteristics, Specifications, Parameters of: Uni-Junction Transistor(UJT) 2. Use of UJT as a relaxation oscillator	
3	Aug 2017	OPERTAIONAL AMPLIFIERS (10L) 3.1 Introduction 3.2 Ideal and practical Characteristics 3.3 Operational amplifier: IC 741- Block diagram and Pin diagram 3.4 Concept of virtual ground	

		3.5 Inverting and non-inverting operational amplifiers with concept of gain. 3.6 Operational amplifier as an adder and subtractor. 3.7 Problems.	
4	Sep 2017	OSCILLATORS (04L) 4.1 Concept of positive and negative feedback 4.2 Barkhausen criteria for an oscillator 4.3 Construction, working and applications of Phase shift oscillator using IC-741 4.4 Problems.	
5	Sep 2017	POWER SUPPLY (06L) 5.1 Concept and working of rectifier half wave, full wave and bridge rectifier 5.2 Ripple voltage 5.3 RC filter circuit 5.4 Unregulated and regulated power supply 5.5 Concept of load and line regulation 5.6 Zener as regulator 5.7 Problems.	
6	Sep/Oct 2017	NUMBER SYSTEM AND LOGIC GATES (08L) 6.1 Number systems: Binary, Binary coded decimal (BCD), Octal, Hexadecimal 6.2 Addition and subtraction of binary numbers and binary fractions using one's and two's complement. 6.3 Basic logic gates (OR, AND, NOT) 6.4 Derived gates: NOR, NAND, EXOR, EXNOR with symbols and truth tables 6.5 Boolean Algebra 6.6 De Morgan's theorems and its verification 6.7 Problems.	

The syllabus of the course has been completed as shown.

HUTATMA RAJGURU MAHAVIDYALAYA, Rajgurunagar.

Syllabus Completion Report 2017-18

T. Y. B. Sc Subject –Physics II

PH-334: Atomic and Molecular Physics

Date	Topic Taken	Period required
20/6/2017- 20/7/2017	Atomic structure 1. Rutherford model of atom 2. Electron orbits 3. Bohr atom 4. Energy levels and spectra (1 to 4 Revision) 5. Vector atom model (Concepts of space and quantization and electron spin) 6. Atomic excitation and atomic spectra	6 Lectures
21/7/2017- 10/8/2017	One and two valence electron systems 1. Pauli Excluding principle and electron configuration, quantum states, Spectral notations of quantum states. 2. Spin-Orbit Interaction (Single valence electron atom), Energy levels of Na atom, selection rules, spectra of sodium atom, sodium Doublet. 3. Spectral terms of two electron atoms, terms for equivalent electrons, L-S and JJ coupling schemes. 4. Singlet-Triplet separation for interaction energy of L-S coupling. Lande Interval rule, spectra of Helium atom	8 Lectures
11/8/2017- 24/8/2017	Zeeman Effect 1. Early discoveries and developments 2. Experimental arrangement 3. Normal and anomalous Zeeman Effect	4 Lectures
25/8/2017- 14/9/2017	X-ray spectroscopy 1. Nature of X-rays 2. Discrete and continuous X-ray spectra, Duane and Hunt's Rule 3. X-ray emission spectra 4. Mosley's law and its applications 5. Auger effect	6 Lectures
15/9/2017- 24/9/2017	Molecular spectroscopy 1. Rotational energy levels 2. Vibrational energy levels 3. Rotational and Vibrational spectra 4. Electronic spectra of molecules Problems	6 Lectures
25/9/2017- 05/10/17	Raman spectroscopy 1. Classical theory of Raman Effect. Molecular polarizability 2. Quantum theory of Raman Effect 3. Experimental set up for Raman Effect 4. Applications of Raman spectroscopy	6 Lectures

Syllabus Completion Report 2017-18

T. Y. B. Sc Subject –Physics **IV**

Nuclear Physics

Date	Topic Taken	Period required
13/11/2017-18/11/2017	Basic Properties of Nucleus Composition, charge, size, density of nucleus, Nuclear Angular momentum, Nuclear magnetic dipole moment, Electric quadrupole moment, parity and symmetry, Mass defect and Binding energy, packing fraction, classification of nuclei, stability of nuclei (N Vs Z Curve) and problems.	6 Lectures
21/11/2017-04/12/2017	Nuclear Energy Nuclear fission, chain reaction and critical mass, nuclear reactor and its basic components, homogeneous and heterogeneous reactors, power reactor, fast breeders, nuclear fusion, stellar energy. Problems.	6 Lectures
05/12/2017-19/12/2017	Nuclear Reactions Introduction to Nuclear reactions, compound nuclear Q-value equation, Exothermic and Endothermic, reaction Threshold energy, Conservation laws, nuclear cross-section. Problems	6 Lectures
20/12/2017-07/01/2018	Particle Accelerator and Detectors Introduction to particle Accelerators, 1. Linear (electron/proton) 2. Cyclic (Cyclotron) Classification of Nuclear Detector 1. Gas filled Detectors (G. M. counter) 2. Solid state detectors (scintillation counter)	6 Lectures
08/01/2018-1/01/2018	Nuclear forces Meson theory of nuclear forces, Properties Of nuclear forces, properties of deuteron system, Elementary particles, Quarks model for elementary particles.	6 Lectures
15/01/2018-27/20/2018	Radioactivity Radioactivity disintegration (concept of natural and artificial radioactivity, Properties of α , β , γ -rays, laws of radioactive decay, half-life, mean life, specific activity and its units, successive disintegration and equilibriums and radioisotopes Application of radioactivity (Agricultural, Medical, Industrial, Archiological). Problems	6 Lectures

K.T. S. P. Mandals
 HUTATMA RAJGURU MAHAVIDYALAYA, Rajgurunagar.
 Syllabus Completion Report 2017-18
 F.Y. B. Sc. Subject –Physics II (Principles of Physics)

Date	Topic Taken	Period required
01 July 2017- 31 July2017	Physics of Atoms 1.The concept of atom (Thompson and Rutherford Atomic Models) 2. Atomic Spectra 3. Bohr Theory 4. Hydrogen atom Spectra 5. Frank Hertz experiment 6. The LASER Absorption, Spontaneous Emission, and Stimulated Emission, Population Inversion and Laser Action, Applications of Lasers	14 Lectures
01 August 2017- 31 August2017	Physics of Molecules 1. Bonding Mechanisms: A Survey i. Ionic Bonds ii. Covalent Bonds iii. Van der Waals Bonds iv. The Hydrogen Bond v. Metallic Bond 2. Variation of potential energy with inter-atomic distance 3. Concept of Rotational and vibrational energy levels of diatomic molecule	13 Lectures
01 September 2017- 05 October 2017	Electromagnetic Waves 1. Historical Perspective of Electromagnetic Waves 2. Production of electromagnetic waves : Hertz experiment 3. Electromagnetic spectrum 4. Planck hypothesis of photons (Concept only) 5. Sources of electromagnetic waves : Radio waves, Microwaves, Infrared, Visible light, Ultraviolet, X-rays, Gamma rays 6. Applications of EM wave. i. microwave oven ii. RADAR iii. Pyroelectric thermometer iv. X-ray radiography and CT Scan v. Solar cell	14 Lectures

Prof. V. B. Deshmukh
 Department of Physics

SYLLABUS COMPLETION REPORT 2017-18

Class- S. Y .B. Sc

Subject –Physics Semester II (Paper I)

PH221: OSCILLATIONS, WAVES AND SOUND

Date	Topic Taken	Period required
17/11/2017- 25/11/2017	Undamped Free Oscillations Different types of equilibria (stable, unstable, and neutral equilibrium) Potential well and periodic oscillations, Approximation of a general potential well $V(x)$ to a parabola for small oscillations Definition of linear and angular S.H.M. Differential equation of S.H.M. and its solution Composition of two perpendicular linear S.H.Ms. for frequencies 1:1 and 1:2 Lissajous's figures and its uses, Applications (mechanical, electrical and optical) Problems.	9 Lectures
07/12/2017- 29/12/2017	Damped Oscillations Introduction. Differential equation of damped harmonic oscillator and its solution, Discussion of different cases. Logarithmic decrement. Energy equation of damped oscillations Power dissipation Quality factor Application: LCR series circuit Problems.	9 Lectures
30/12/2017- 18/01/2018	Forced Oscillations Forced oscillation with one degree of freedom Differential equation of forced oscillation and its solution Amplitude of forced oscillation Resonance and its examples: mechanical (Barton's pendulum), optical (sodium vapour lamp), Velocity and Amplitude resonance Sharpness of resonance Energy of forced oscillations Power dissipation Quality factor and Bandwidth Application of forced oscillations Equation of coupled oscillations, Problems.	10 Lectures

19/01/2018- 09/02/2018	Wave Motion Differential equations of wave motion in continuous media Equations for longitudinal waves and it's solution (one dimension only) Equation for transverse waves and its solution (one dimension only) Energy density and intensity of a wave Discussion of seismic waves Problems.	8 Lectures
10/02/2018- 21/02/2018	Doppler Effect Explanation of Doppler effect in sound Expression for apparent frequency in different cases. Asymmetric nature of Doppler effect in sound Doppler effect in light, symmetric nature of Doppler effect in light. Applications: Red shift, Violet shift, Radar, Problems.	6 Lectures
23/02/2018- 27/02/2018	Sound Definition of sound intensity, loudness, pitch, quality and timber Acoustic intensity level measurement Acoustic pressure and it's measurement Reverberation time and Reverberation of a hall Sabine's formula (without derivation) Stroboscope Problems	6 Lectures

Prof. V. B. Deshmukh

Teaching Report 2017-2018
DEPARTMENT OF PHYSICS

Physics Paper I: Mechanics

F. Y .B.Sc. TERM-I

NAME: Mr. Barne N.D.

Months	Topic taken	Periods
25July-9Aug 2017	1.Newton's Law of Motion <ul style="list-style-type: none"> • Newton's First and Second Law and their explanation • Working with Newton's First and Second Law • Newton's Third Law of Motion and its Law • Various Types of Forces in Nature and Concept of Field • Frame of Reference (Inertial and Non-inertial) • Pseudo Forces (eg. Centrifugal Force) 	06
10-24 Aug 2017	2. Work and Energy <ul style="list-style-type: none"> • Kinetic Energy • Work and work-Energy Theorem • Conservative and Non-conservative Forces • Potential Energy and Conservation of Mechanical Energy • Change in Potential Energy in Rigid body Motion Mass- Energy Equivalence 	08
	INTERNAL TEST	
25Aug & 10Sept 2017	3. Elasticity <ul style="list-style-type: none"> • Hook's Law and Coefficient of Elasticity • Young's Modulus, Bulk Modulus and Modulus of Rigidity • Work Done during Longitudinal Strain, Volume Strain and Shearing Strain • Poisson's Ratio • Relation Between Three Elastic Modulli • Torsional Oscillations 	08
12-23Sept 2017	4. Surface Tension <ul style="list-style-type: none"> • Surface Twension,Angle of Contact, Capillary Rise Method • Rise of Liquid in a Conical Capillary Tube • Energy Required to Raise a Liquid in Capillary Tube • Factors Affecting Surface Tension • Jeager's Method for Determination of Surface Tension • Applications of Surface Tension 	05
	INTERNAL TEST	

25Sept-6Oct 2017	5. Viscosity and Fluid Mechanics <ul style="list-style-type: none"> • Concept of Viscous Forces and Viscosity • Pressure in a Fluid and Buoyancy • Pascal's Law • Atmospheric Pressure and Barometer • Pressure Difference and Buoyant Force in Accelerating Fluids • Steady and Turbulent Flow, Reynold's Number • Equation of Continuity • Bernoulli's Theorem • Applications of Bernoulli's Equation 	09
	ASSIGNMENT AND QUESTION PAPERS OF THESE CHAPTER	

Teaching Report 2017-2018

DEPARTMENT OF PHYSICS

Physics Paper I: Heat and Thermodynamics

F. Y .B.Sc. TERM-II

Prof. N. D. Barne

Months	Topic taken	Periods
08-19Dec 2017	1. Equation of State <ul style="list-style-type: none"> • Equation of State • Andrew's Experiment • Amagat's Experiment • Van der Waal's Equation of State • Critical Constants • Reduced Equation of State • Joule-Thomson Porous Plug Experiment 	08
19Dec 2017 & 5Jan 2018	2. Concept of Thermodynamics <ul style="list-style-type: none"> • Thermodynamic State of a System and Zeroth Law of Thermodynamics • Thermodynamic Equilibrium • Adiabatic and Isothermal Changes • Work Done During Isothermal Changes • Adiabatic Relations for Perfect Gas • Work Done During Adiabatic Change • Indicator Diagram • First Law of Thermodynamic • Reversible and Irreversible Processes 	08

05-20Jan 2018	3. Applied Thermodynamics <ul style="list-style-type: none"> • Conversion of Heat into Work and it's Converse • Carnot's Cycle and Carnot's Heat Engine and it's Efficiency • Second Law of Thermodynamics • Concept of Entropy • Temperature-Entropy Diagram • TdS Equation • Clausius-Clapeyron's Latent Heat Equations 	08
21Jan- 09Feb 2018	4. Heat Transfer Mechanics <ul style="list-style-type: none"> • Heat Engines <ul style="list-style-type: none"> i) Otto Cycle and its Efficiency ii) Diesel Cycle and its Efficiency • Refrigerators <ul style="list-style-type: none"> i) General Principle and Coefficient of Performance ii) The Carnot Refrigerator iii) Simple Structure of Vapour Compression Refrigerator • Air Conditioning: Principle and its Applications <p>INTERNAL TEST</p>	08
10-22Feb 2018	5. Thermometry <ul style="list-style-type: none"> • Temperature Scales: Centigrade, Fahrenheit and Kelvin • Principle, Construction and Working of Following Thermometers: <ul style="list-style-type: none"> i) Liquid and Gas Thermometers ii) Resistive Type Thermometers iii) Thermocouple as a Thermometer iv) Pyrheliometer 	04

Syllabus Completion Report

S. Y. B. Sc. [Botany]: 2017 - 18

Plant Anatomy and Embryology

(Semester II, Paper I)

Sr. No	Month	Topics
1	Nov & Dec	<p>Plant anatomy:</p> <p>Introduction</p> <p>Definition, scope of plant anatomy and types of tissues</p> <p>Epidermal tissue system</p> <p>Structure and function of epidermal tissue system, uniseriate and multiseriate epidermis, stomata: structure, types and functions, epidermal outgrowth: glandular and non-glandular.</p>
2	Dec	<p>Mechanical tissue system</p> <p>Principles involved in distribution of mechanical tissues – inflexibility, incompressibility, inextensibility and shearing stress, tissues providing mechanical support, their distribution in leaf, stem and root of dicots and monocots.</p> <p>Vascular tissue system</p> <p>Structure and function of xylem, phloem and cambium</p> <p>Normal secondary growth</p> <p>Introduction, cambium and its role, process in stems of <i>Helianthus annuus</i> and <i>Annona squamosa</i>, extrastelar and intrastelar secondary growth, annual rings, periderm, bark, tylosis and lenticel</p> <p>Anomalous secondary growth</p> <p>Introduction, causes, anomalous secondary growth in dicot stem (<i>Bignonia</i>) dicot root (<i>Raphanus</i>) and monocot stem (<i>Dracaena</i>).</p>

3	Jan	<p>Plant Embryology</p> <p>Introduction</p> <p>Definition and scope of plant embryology</p> <p>Microsporangium and male gametophyte</p> <p>a. Microsporangium: structure of tetrasporangiate anther, types of tapetum, sporogenous tissue.</p> <p>b. Microsporogenesis: process and its types, types of microspore tetrad.</p> <p>c. Male gametophyte: structure and development of male gametophyte.</p> <p>Megasporangium and female gametophyte</p> <p>a. Megasporangium: structure, types of ovules – anatropous, orthotropous, amphitropous, campylotropous, circinotropous.</p> <p>b. Megasporogenesis: tenuinucellate and crassinucellate ovules, types of megaspore tetrads.</p> <p>c. Female gametophyte: structure of typical embryo sac, types of embryo sacs with examples – monosporic, bisporic and tetrasporic.</p>
4	Feb	<p>Fertilization</p> <p>Mechanism of pollination- entomophily, anemophily, hydrophily, zoophily, germination of pollen grain, double fertilization (syngamy and triple fusion) and its significance.</p> <p>Endosperm and embryo</p> <p>a. Endosperm: Types – nuclear, helobial and cellular.</p> <p>b. Embryogeny: structure of dicot and monocot embryo and seed formation.</p> <p>Revision, Question Paper Discussion and Internal Theory Examination</p>

Prof. G.L.Bhor

Syllabus Completion Report

S.Y.B.Sc. Botany: 2017 - 18

Plant Biotechnology

(Semester II, Paper II)

Sr. No.	Month	Topics
1	Nov	Introduction Biotechnology- Definition, concept and scope; Interdisciplinary nature of biotechnology.
2	Nov.	Enzyme Technology Introduction, definition and properties of enzymes; Classification of enzymes; Industrial applications of enzymes; Production of amylase, proteases and lipase enzyme; Enzymes immobilization- concept and techniques of immobilization.
3	Dec.	Fermentation Technology Introduction; Liquid and solid state fermentations; Principles of microbial growth; Bioreactors used in fermentations- stirred tank and tubular tower and digestive tank fermenters; Media composition for liquid and solid state fermentations; Industrial applications of fermentation; Downstream processing- citric acid production.
4	Dec.	Single cell protein Introduction, Need of proteins in diet, Production of SCP from algae (<i>Spirulina</i>) and fungi (Yeast). The economic implications of SCP, Acceptability of SCP.
5	Dec & Jan	Environmental Biotechnology Introduction; Phytoremediation- definition and concept; Methods of phytoremediation- Rhizofiltration, phytoextraction, phytostabilization, phytovolatilization, phytodegradation; Environmental sustainability.
6	Jan	Basics of plant genetic engineering Introduction and structure of DNA, Structure of gene in prokaryotes and eukaryotes- Promoter, coding region and terminator, General method of gene isolation from the plants-DNA isolation, restriction enzymes, restriction digestion of DNA. DNA electrophoresis, southern hybridization, ligation of DNA fragments, Gene cloning- vectors used for gene cloning.

7	Jan	Methods of gene transfer Direct gene transfer methods- Electroporation, biolistic gene transfer, liposome mediated transfer. Vector mediated gene transfer- Agrobacterium mediated gene transfer in plants, Ti-plasmid: structure and functions, Ti plasmid based vectors, advantages.
8	Feb	Application of plant genetic engineering in crop improvement. Introduction, Insect pest resistance, abiotic stress tolerance, herbicide resistance, storage protein quality.
9	Feb	Nano-biotechnology Definition and concept; Applications of nanotechnology in agriculture (fertilizers and pesticides). Revision, Question Paper Discussion and Internal Theory Examination

Dr. K.M. Nitnaware

Syllabus Completion Report

F. Y. B. Sc. Botany: 2017 - 18

(Term – II; Paper – I)

Sr. No	Month	Topics
1	Nov & Dec	<p>Morphology</p> <p>Introduction, Definition and Scope. Descriptive and Interpretative.</p> <p>Importance in identification, nomenclature, classification, phylogeny and Plant breeding.</p>
2	Dec	<p>Morphology of Vegetative Parts</p> <p>Root: Types of roots, Modifications of roots: Epiphytic, Respiratory (Pneumatophores), Parasitic and Storage roots (conical, fusiform and napiform) with examples; functions of root.</p> <p>Stem: Modifications of Stem: Phylloclade, Runner, Stolon, Suckers, Offsets, Rhizome, Corm, Tuber and Bulb with examples. Functions of stem.</p> <p>Leaf: Parts of typical leaf: petiole, lamina; leaf margins and apices. Types of leaves: simple, compound, venation, phyllotaxy. Modifications: tendrils, spines, scale leaves, phyllode, reproductive and trap leaves (mechanism of trapping in Nepenthes only) with examples. Functions of leaf.</p>
3	Jan & Feb	<p>Morphology of Reproductive Parts</p> <p>Inflorescence: Types of inflorescence: Racemose (raceme, spike, corymb, umbel, catkin, spadix and capitulum), Cymose (solitary, monochasial, dichasial, polychasial), Special types (Verticillaster, Cyathium, and Hypanthodium) Significance.</p> <p>Flower: Parts of typical flower, Types of flower (complete, incomplete), symmetry of flower and insertion of floral whorls. Floral whorls: Calyx, corolla, perianth, aestivation, modifications of calyx (pappus, petaloid, spurred), forms of corolla: polypetalous (cruciform and papilionaceous)</p>

		gamopetalous (infundibuliform, bilabiate), Androecium: structure of stamen, fixation of anthers, cohesion and adhesion; Gynoecium: structure of carpel. Types of placentations.
4	Feb	Fruit: Types of fruits: Simple and dry: Achene, Cypsela, Legume, Follicle and Capsule, Fleshy: Drupe, berry, Hesperidium and pepo. Aggregate: Etaerio of berries and Etaerio of follicles. Multiple fruits: Syconus and Sorosis. Seed: Parts, types, structural modifications for seed dispersal.
5	Feb	Anatomy Introduction, Definition, Importance in taxonomy, physiology, ecological interpretations, pharmacognosy and wood identification. Revision & Question paper discussion Internal Theory Examination

Dr. Jagtap S.M.

Syllabus completion Report

F. Y. B. Sc. - Botany: 2017 - 18

Industrial Botany

(Term – II; Paper – II)

Sr. No.	Month	Topics
1	Nov & Dec	Bio-fuel Industry Introduction and advantages. Concept of biofuel and its need. Plants used for biofuel production. Biodiesel production from Caster. Commercial significance
2	Dec	Bio-pesticide Industry Concept of bio-control; Integrated Pest Management (IPM). Importance of bio pesticides. Types of bio pesticides: Indiar, Azadiractin. Commercial significance.
3	Jan	Industrial Mycology Introduction. Important genera of fungi used in various industries and their products. Products and applications of Trichoderma, Penicillium, Aspergillus and yeast. Commercial significance.
4	Jan & Feb	Bio-Fertilizer Industry Bio fertilizers : concept and need . Types of bio-fertilizers: Nitrogen fixing bio fertilizer: Rhizobium, Bluegreen algae. Anabaena associated with Azolla. Phosphate solubilizing biofertilizer: Bacteria and Fungi.Commercial significance.
5	Feb& Mar	Fruit Processing Industry Fruit processing: concept and need. Cold storage. Types of fruit processing (canned fruits, dried fruit chips, fruit pulp, squash,

		jam, jelly, pickle and ketchups). Commercial significance. Revision & Question paper discussion Internal Theory Examination
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Dr. Sangeetha J.S.

2018 - 2019

अत्र पहिले

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खेड तालुका शिक्षण प्रसारक मंडळाचे
हुतात्मा राजगुरु महाविद्यालय

इतिहास विभाग
द्वितीय वर्ष कला सामान्यस्तर २

२०१८ - २०१९

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खेड तालुका शिक्षण प्रशासक मंडळाचे
हुतात्मा राजगुरू महाविद्यालय

इतिहास विभाग
द्वितीय वर्ष कला विशेषस्तर १

२०१८ - २०१९

प्राचीन भारत (इ.स.पू.३००० ते इ.स.१२०६)

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खेड तालुका शिक्षण प्रसारक मंडळाचे
हुतात्मा राजगुरु महाविद्यालय

इतिहास विभाग
द्वितीय वर्ष कला विशेषस्तव २

२०१८ - २०१९

आधुनिक महाराष्ट्राचा इतिहास (१८१८ - १९६०)

महिना	प्रस्तावित प्रकरण व उपमुद्दे	आवश्यक ताक्षिका
जुलै १८	संकल्पनात्मक अभ्यास	१५
ऑगस्ट १८	संकल्पनात्मक अभ्यास (०१)	
	१९ व्या शतकाच्या पूर्वार्धातील महाराष्ट्र	०९
	सामाजिक आर्थिक व धार्मिक सुधारणावाद	१२
सप्टेंबर १८	सामाजिक आर्थिक व धार्मिक सुधारणावाद (०६)	
	सुधारणा चळवळ व संस्था	१२
ऑक्टोबर १८	सुधारणा चळवळ व संस्था (०२)	
नोव्हेंबर १८	सुधारणा चळवळ व संस्था (०२)	
द्वितीय भाग		
डिसेंबर १८	विचारवंतांचे विचार व कार्य (१६)	१६
जानेवारी १९	स्वातंत्र्य चळवळीतील महाराष्ट्राचे योगदान (१२)	१२
	महाराष्ट्रातील लोक चळवळी	१०
फेब्रुवारी १९	महाराष्ट्रातील लोक चळवळी (०४)	
	स्वातंत्र्योत्तर महाराष्ट्र	१०
मार्च १९	स्वातंत्र्योत्तर महाराष्ट्र	



खेड तालुका शिक्षण प्रसारक मंडळाचे
हुतात्मा राजगुरू महाविद्यालय
इतिहास विभाग
वृतीय वर्ष कला सामान्यस्तरीय अभ्यासक्रम

२०१८ - २०१९

वीशाव्या शतकातील जगाचा इतिहास (१९१४ -१९९२)

महिना	प्रस्तावित प्रकरण व उपमुद्दे	आवश्यक तादिका
जुलै १८	संकल्पनात्मक अभ्यास	०४
	पहिले महायुद्ध	१०
	कारणे व परिणाम	
	राष्ट्रबंध	
	रशियन राज्यक्रांती कारणे	१२
ऑगस्ट १८	लेनिन नवे आर्थिक धोरण व रॅटॅलिन आणि पंचवार्षिक योजना	
	रॅटॅलिन व पंचवार्षिक योजना	
	हुकूमशाही	१२
सप्टेंबर १८	इटली जर्मनी व तुर्कस्थान	
	आर्थिक महामंदी	१०
ऑक्टोबर १८	रूपरूप, कारणे व परिणाम	
दुसरे भाग		
नोव्हेंबर १८	दुसरे महायुद्ध	१६
	दुसरे महायुद्ध कारणे व परिणाम	
डिसेंबर १८	संयुक्त राष्ट्र संघटना	
	जागतिक महाभक्तांचा उदय	१४
	अमेरिका व रशिया	
जानेवारी १९	बटावॉर	
फेब्रुवारी १९	तिब्बत जग	०९
	अलिप्ततावाद व भारत	
	भारत व ओपेक	
	जागतिकीकरणकडे पाहता	०९
मार्च १९	शीतयुद्ध अखेर व रशियाचे विघटन	
	उद्घाटन आणि गॅट व डब्ल्यूटीओ	
	मूलतत्त्ववाद	

खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरु महाविद्यालय

राजगुरुनगर, ता. खेड, जि. पुणे ४१०५०५

भूगोल विभाग

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ — २०१८ करिता

प्रा. डी. डी. मुळूक

अ.नं.	वर्ग	विषयाचे नाव	विषय शिक्षक
१	एफ. वाय. बी. ए.	भूरूपशास्त्राची मूलतत्वे (जी १)	प्रा. डी. डी. मुळूक
२	एस. वाय. बी. ए.	पर्यटन भूगोल (एस १)	प्रा. डी. डी. मुळूक
३	टी. वाय. बी. ए.	भारताचा भूगोल (जी ३)	प्रा. डी. डी. मुळूक
४	टी. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस ४)	प्रा. डी. डी. मुळूक

अभ्यासक्रम पूर्तता अहवाल

२०१७—२०१८

वर्ग—प्रथम वर्ष कला (FYBA)

विषय — भूगोल (भूरूपशास्त्राची मूलतत्वे) जी १

विषय शिक्षकांचे नाव — प्रा. दिलीप मुळूक आणि
तुकडी — अ, ब,

शैक्षणिक वर्ष २०१७ — २०१८

महिना	तासिका	घटक	उपघटक
जून २०१७	८	भूरूपशास्त्राची प्रस्तावना	अ) प्राकृतिक भूगोलाची प्रस्तावना आणि शाखा ब) भूरूपशास्त्र — व्याख्या, स्वरूप आणि व्याप्ती
जुलै/ऑगस्ट २०१७	६	पृथ्वी — मूलभूत संकल्पना	अ) पृथ्वीचा आकार आणि आकारमान, त्रिज्या, व्यास आणि परीघ, अक्षांश आणि अक्षवृत्ते ब) स्थानिकवेळ, प्रमाणवेळ, वेळप्रभाग, आंतरराष्ट्रीय वारंवेळ
ऑगस्ट २०१७	५ ६	पृथ्वी	अ) पृथ्वी—पृथ्वीचे अंतरंग—संघटन आणि रचना ब) खंड आणि महासागरांची निर्मिती १. वेगनगरचा खंडवहन सिध्दांत २. तबकडी भूविवर्तनकी सिध्दांत ३. सागरतळ पसरणीचा सिध्दांत
सप्टेंबर २०१७	५ ५	खडक	अ) खडक— खडकांची व्याख्या आणि निर्मिती ब) खडकांचे प्रकार १. अग्निजन्य/अग्निज खडक २. स्तरित / गाळाचे / जलजन्य खडक ३. रूपांतरीत/विकृत खडक
सप्टेंबर २०१७	५	भूप्रक्षोभक हालचाली	अ) भूगर्भीय हालचाली — व्याख्या आणि कारणे ब) भूप्रक्षोभक हालचालींचे प्रकार

	५		१. संथ/मंद हालचाली वलीकरण प्रक्रिया प्रस्तरभंग २. शीघ्र हालचाली ज्वालामुखी भूकंप
डिसेंबर २०१७	६	विदारण	अ) विदारणाची व्याख्या आणि अर्थ ब) विदारणाचे प्रकार १. कायिक/यांत्रिक/भौतिक विदारण २. रासायनिक विदारण ३. जैविक विदारण ४. मानव प्रणित विदारण क) जलचक्र
जानेवारी २०१८	६	खनन आणि संचयनाची कारके	अ) नदीच्या कार्यामुळे निर्माण होणारे भूआकार ब) वाऱ्याच्या कार्यामुळे निर्माण होणारे भूआकार
जानेवारी २०१८	८	शिलापदार्थांची हालचाल	अ) शिलापदार्थांची हालचाल—संकल्पना, व्याख्या, अर्थ ब) शिलापदार्थांच्या हालचालीचे प्रकार १. मृदा घसरण २. भूसखलन/भूमिपात ३. डबरप्रवाह ४. मृदाप्रवाह ५. हिमावसरण
फेब्रुवारी २०१८	६	उतार	अ) उतार — व्याख्या, अर्थ आणि संकल्पना ब) उताराचे प्रकार १. अंतर्वक्र उतार २. बहिर्वक्र उतार ३. उभा उतार ४. मंद उतार ५. तीव्र उतार ६. सम उतार ७. पायऱ्यापायऱ्याचा उतार
फेब्रुवारी/मार्च २०१८	६ ५ ४ ४	भूरूपशास्त्राचे उपयोजन	अ) मानवी क्रिया १. वसाहती २. वाहतूक ३. भूमी उपयोजन ४. खाणकाम ५. साधनसंपत्तीचे मूल्यमापन ब) पर्यावरणीय आपत्तीचे मूल्यांकन १. भूमिपात २. त्सुनामी ३. मृदा धूप ४. महापूर क) पाणलोट क्षेत्र व्यवस्थापन ड) क्षेत्र भेट/सहल—भूरूपांचे निरीक्षण करणे (दोन दिवसांपेक्षा कमी कालावधीसाठी)

अभ्यासक्रम पूर्तता अहवाल

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल एस १ (पर्यटन भूगोल)

प्रा. डी. डी. मुळूक

शैक्षणिक वर्ष २०१७ — २०१८

प्रकरण	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/ जुलै २०१७	१०	पर्यटन भूगोलाचा परिचय	अ) प्रस्तावना आणि व्याख्या ब) पर्यटन भूगोलाचे स्वरूप क) पर्यटन भूगोलाची व्याप्ती ड) पर्यटनाचे महत्त्व	१) पर्यटन भूगोल — प्रस्तावना २) व्याख्या — पर्यटन आणि पर्यटक १) वैशिष्ट्यपूर्ण स्वरूप २) वैविध्यपूर्ण स्वरूप ४) करमणूक प्रधान स्वरूप ५) गतिशील स्वरूप ६) आंतरविद्याशाखीय स्वरूप ७) अनुत्पादक स्वरूप ८) हंगामी स्वरूप १) पर्यटन मानवाची मूलभूत गरज २) वाहतूक आणि पर्यटन ३) नैसर्गिक पर्यावरण आणि पर्यटन ४) संस्कृती आणि पर्यटन ५) धार्मिक घटक आणि पर्यटन ६) पर्यटन उत्पादने १) पर्यटन आणि भूगोल यांचा सहसंबंध २) पर्यटनाचे महत्त्व
जुलै/ ऑगस्ट २०१७	१५	पर्यटन संकल्पना आणि वर्गीकरण	अ) पर्यटनच्या संकल्पना ब) पर्यटनाचे वर्गीकरण १) राष्ट्रीयत्वाच्या अधारे २) प्रवासाचा वेळ ३) प्रवासाचे अंतर	१) भू पर्यटन २) कृषी पर्यटन ३) वारसा पर्यटन ४) साहसी/ धाडसी पर्यटन ५) धार्मिक पर्यटन ६) आरोग्य पर्यटन ७) क्रीडा पर्यटन ८) आपत्ती पर्यटन १) आंतरराष्ट्रीय पर्यटन २) राष्ट्रीय पर्यटन ३) प्रादेशिक पर्यटन ४) स्थानिक पर्यटन १) दीर्घकालीक पर्यटन २) अल्पकालीक पर्यटन ३) दैनिक पर्यटन १) खंडीय पर्यटन २) देशातर्गत पर्यटन ३) राज्यातर्गत पर्यटन ४) स्थानिक पर्यटन १) समूह पर्यटन २) कुटूंब पर्यटन

			<p>४) पर्यटकांच्या संख्येवर अधारीत</p> <p>५) पर्यटनाच्या उद्देश्यावरून अधारीत</p> <p>६) पर्यटनाचा दृष्टीकोन</p>	<p>३) वैयक्तिक पर्यटन</p> <p>१) धार्मिक पर्यटन</p> <p>२) करमणूक पर्यटन</p> <p>३) वारसापर्यटन</p> <p>४) साहसी/धाडसी पर्यटन</p> <p>५) नैसर्गिक पर्यटन</p> <p>६) आरोग्य पर्यटन</p> <p>७) क्रीडा पर्यटन</p> <p>१) इको टुरिझम</p>
ऑगस्ट सप्टेंबर २०१७	१०	पर्यटनाच्या क्षमतेचे मूल्यमापन— १	<p>प्राकृतिक घटक</p> <p>अ) भूउठाव</p> <p>ब) जलाशये</p> <p>क) हवामान</p> <p>ड) जंगले</p>	<p>१) पर्वतीय प्रदेश</p> <p>२) पठारी प्रदेश</p> <p>३) मैदानी प्रदेश</p> <p>४) सागरी पुळणे</p> <p>५) नदी उगमस्थाने</p> <p>६) धबधबे</p> <p>१) सरोवरे आणि धरणे</p> <p>२) गरम पाण्याचे झरे</p> <p>३) उष्णोदके/गेसर्स</p> <p>४) नद्यांचे संगम</p> <p>१) थंड हवेची ठिकाणे</p> <p>२) हिमवर्षावाची ठिकाणे</p> <p>३) पावसाळी प्रदेश</p> <p>४) सौरस्नानाची ठिकाणे</p> <p>१) राष्ट्रीय उद्याने</p> <p>२) अभयारण्ये</p> <p>(भारतातील उदाहरणासह)</p>
सप्टेंबर ऑक्टोबर २०१७	१०	पर्यटनाच्या क्षमतेचे मूल्यमापन— २	<p>सामाजिक — सांस्कृतिक घटक</p> <p>अ) धार्मिक घटक</p> <p>ब) ऐतिहासिक घटक</p> <p>क) सांस्कृतिक घटक</p>	<p>१) धार्मिक ठिकाणे/धर्मस्थळे — सर्व धर्मांची</p> <p>२) ऐतिहासिक ठिकाणे</p> <p>३) सांस्कृतिक ठिकाणे</p> <p>४) क्रीडा स्थळे</p> <p>५) सण व उत्सव</p> <p>६) वारली चित्रकला</p> <p>७) आदर्श खेडी/गावे</p> <p>(भारतातील उदाहरणासह)</p>
डिसेंबर २०१७	१०	वाहतूक आणि दळणवळण	<p>भौतिक साधनसंपत्ती आणि पूरक सुविधा</p>	<p>१) रस्ते वाहतूक</p> <p>२) रेल्वे वाहतूक</p> <p>३) जल वाहतूक</p> <p>४) हवाई वाहतूक</p> <p>५) अवकाशीय वाहतूक</p> <p>१) पर्यटक मार्गदर्शक/गाईड</p> <p>२) टेलिफोन/मोबाईल/दूरदर्शन</p> <p>३) इंटरनेट</p> <p>४) इलेक्ट्रॉनिक आणि प्रिंटींग मिडीया</p> <p>५) प्रवासी वाहतूक आणि पर्यटन संस्था</p>

डिसेंबर २०१७ जानेवारी २०१८	१०	निवासस्थाने	निवासस्थानांचे प्रकार	१) खाजगी हॉटेल २) मोटेल ३) पथिकाश्रम ४) सरकारी निवासस्थाने — रेस्ट हाऊस, गेस्ट हाऊस, सर्कीट हाऊस ५) युथ होस्टेल ६) तंबू ७) बेड आणि ब्रेकफास्ट ८) रेल यात्री भवन ९) हाऊसबोट १०) धर्मशाळा ११) खाजगी निवासस्थाने
जानेवारी २०१८ फेब्रुवारी २०१८	१२	पर्यटनाचे परीणाम / संघात	अ) पर्यावरणीय परीणाम ब) आर्थिक परीणाम क) सामाजिक आणि सांस्कृतिक परीणाम	१) मृदा धूप २) प्रदूषणे — भूप्रदूषण, जलप्रदूषण, वायुप्रदूषण ३) वनांचा न्हास ४) पशू आणि पक्षांचा न्हास १) पर्यटन एक आर्थिक क्रिया २) परदेशी चलनावरील परिणाम ३) रोजगार निर्मिती ४) जमिनीच्या किमतीतील वाढ ५) व्यापार वृद्धी ६) सरकारी महसुलातील वाढ ७) साधनसंपत्तीचा विकास ८) गुणात्मक परिणाम १) नववसाहतवाद २) गुन्हेगारी/फसवेगिरी ३) धार्मिक परिणाम ४) भाषेवरील परिणाम ५) आरोग्यावरील परिणाम ६) पारंपरिककला/हस्तकलांवरील परीणाम
फेब्रुवारी २०१८ मार्च २०१८	१३	प्रमुख पर्यटन स्थळांचा अभ्यास	अ) थंड हवेची ठिकाणे ब) पुळणे क) ऐतिहासिक स्थळे ड) धार्मिकस्थळे इ) धरणे/जलाशये	१) मनाली (हिमाचल प्रदेश) २) महाबळेश्वर (महाराष्ट्र) १) मरिना बीच (चेन्नई) २) दिवेआगार (रायगड) १) कोणार्कचे सूर्यमंदीर (ओडीशा) २) रायगड किल्ला (महाराष्ट्र) १) वैष्णोदेवी (जम्मू) २) शेगाव (बुलढाणा) १) सरदार सरोवर (गुजराथ) २) लोणार सरोवर (बुलढाणा)

अभ्यासक्रम पूर्तता अहवाल

२०१७ — २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय —भूगोल जी ३ (भारताचा प्रादेशिक भूगोल)

प्रा. डी. डी. मुळूक

तुकडी ब

महिने	तासिका	घटक	उपघटक	अभ्यास घटक
जून ते ऑगस्ट २०१७	१०	भारताचा परिचय	स्थान, विस्तार आणि भूराजनीतिक महत्व	१. ऐतिहासिक पार्श्वभूमी २. स्थान विस्तार ३. शेजारील देश आणि त्यांच्याशी संबंध ४. हिंदी महासागराचे भूराजनीतिक महत्व
सप्टेंबर ऑक्टोबर २०१७	१२	प्राकृतिक रचना	महत्वाचे प्राकृतिक विभाग आणि महत्व	१. उत्तरेकडील पर्वतमय प्रदेश २. उत्तर भारतीय मैदाने ३. भारतीय व्दिपकल्पीय पठार ४. किनारपट्टीचे मैदान ५. बेटे
डिसेंबर २०१७ जानेवारी २०१८	१२	मृदा आणि नैसर्गिक वनस्पती	प्रकार आणि वितरण	१. मृदेचे प्रकार आणि वर्गीकरण २. मृदा धूप आणि संधारण ३. वनांचे प्रकार आणि वितरण
फेब्रुवारी मार्च २०१८	१२	खनिजे आणि शक्तीसाधने	खनिजे शक्तीसाधने	१. लोहखनिज, मॅंगनीज, बॉक्साईट आणि तांबे यांचे वितरण २. उर्जासाधने ३. पारंपारिक उर्जासाधने — द. कोळसा, खनिज तेल, नैसर्गिक वायू. ४. अपारंपारिक उर्जासाधने — जलविद्युत, सौर उर्जा, पवनउर्जा, बायोगॅस, अणुउर्जा

अभ्यासक्रम पूर्तता अहवाल २०१७ — २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय —भूगोल (प्रात्यक्षिक भूगोल) एस ४

प्रा. डी. डी. मुळूक

महिने	तासिका	घटक	उपघटक
जुलै/ऑगस्ट २०१७	१५	भारततीय स्थलदर्शक नकाशे	अ) भारतीय स्थलदर्शक नकाशांचा अभ्यास प्रस्तावना १. सामासिक माहिती २. वृत्तजाळी संदर्भ ३. सांकेतिक चिन्हे आणि खुणा ब) स्थलदर्शक नकाशांचे प्रकार/निर्देशांक १. १: १००००००० दशलक्षी नकाशे

			<p>२. १: २५०००० पावडंची नकाशे</p> <p>३. १: १००००० अर्धा इंची नकाशे</p> <p>४. १ : ५०००० एक इंची नकाशे</p> <p>५. १ : २५०००</p> <p>६. १ : ५००० नागरी आणि पर्यटन स्थळांचे नकाशे</p>
सप्टेंबर/ऑक्टोबर २०१७	१५	उठाव दर्शविण्याच्या पध्दती	<p>अ) उठाव दर्शविण्याच्या पध्दती</p> <p>१) गुणात्मक पध्दती — हॅच्युर्स, छाया पध्दती, रंग पध्दती.</p> <p>२) संख्यात्मक पध्दती — समोच्च रेषा, आकार रेषा, बेंच मार्क, स्थल उंचाक, त्रिकोणामिती पध्दती, तुलनात्म उंची</p> <p>ब) समोच्च रेषांच्या साह्याने उठाव व्यक्त करण्याच्या पध्दती</p> <p>उतारांचे प्रकार</p> <p>१) अंतर्वक्र उतार २) बहिर्वक्र उतार ३) उभा उतार ४) तीव्र उतार ५) मंद उतार ६) सम उतार ७) विषम उतार</p> <p>८) पायच्या पायच्याचा उतार</p> <p>भूरूपांचे प्रकार</p> <p>१) शंकवाकृती टेकडी २) पठार ३) सुळका ४) खिंड</p> <p>५) कडा ६) धबधबा</p> <p>क) छेद तयार करणे</p> <p>१) छेद तयार करण्याच्या पध्दती</p> <p>१. कागदी पट्टीच्या साह्याने छेद तयार करणे.</p> <p>२. दोऱ्याच्या साह्याने छेद तयार करणे.</p> <p>१) स्थलनिर्देशक नकाशामधील कोणत्याही भूप्रदेशाचा समोच्च रेषांच्या साह्याने छेद तयार करणे.</p> <p>२) नदीचा आणि रस्त्याचा छेद तयार करणे.</p>
डिसेंबर २०१७ जानेवारी २०१८	१५	स्थलदर्शक नकाशांचे निरीक्षण, वाचन आणि माहिती संकलन	<p>अ) स्थलदर्शक नकाशांचे वाचन</p> <p>१) पर्वतीय प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>२) पठारी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>२) मैदानी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>ब). क्षेत्र भेट — भूरूपांचे निरीक्षण आणि ओळख करून घेण्यासाठी एक दिवसीय क्षेत्र भेट आणि त्याचे संक्षिप्त अहवाल लेखन.</p>
फेब्रुवारी/मार्च २०१८	१५ ५	भौगोलिक माहिती प्रणाली आणि सुदूर संवेदन प्रणालीचे भूगोल विषयातील उपयोजन	<p>अ) हवाई छायाचित्रे आणि उपग्रह प्रतिमा — प्रास्ताविक</p> <p>१) हवाई छायाचित्रांचे वाचन</p> <p>२) उपग्रहीय प्रतिमांचे वाचन</p> <p>ब) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचे वाचन करताना संगणकाचे उपयोजन</p> <p>क) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचा अभ्यास करण्याकरीता ओपन सोर्स सॉफ्टवेअर माहिती</p>

शैक्षणिक वर्ष २०१७ — २०१८ मध्ये खालील समित्या व उपक्रमांमध्ये सहभाग घेण्यात आला.

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| १. स्पर्धा परिक्षा विभाग | — प्रमुख |
| २. वार्षिक नियोजन | — प्रमुख |
| ३. पर्यावरण जाणिव जागृती | — प्रमुख |
| ४. कार्यक्रम भोजन समिती | — प्रमुख |
| ५. महाविद्यालय विकास समिती | — सदस्य |
| ६. IQAC | — सदस्य |
| ७. मुलींचे वस्तीगृह समिती | — सदस्य |
| ८. शिस्त समिती | — सदस्य |
| ९. विद्यार्थी कौन्सिल | — सदस्य |
| १०. कार्यक्रम समिती | — सदस्य |
| ११. क्रिडा समिती | — सदस्य |
| १२. कला मंडळ | — सदस्य |
| १३. सांस्कृतिक विभाग | — सदस्य |
| १४. महाविद्यालयातील विविध परिक्षांमध्ये परिक्षण व मूल्यमापनात सहभाग | |

दिनांक ३०/४/२०१८

प्रा. दिलीप मुळूक
भूगोल विभाग

खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरू महाविद्यालय

राजगुरूनगर, ता. खेड, जि. पुणे ४१०५०५

भूगोल विभाग

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ — २०१८ करिता

प्रा. मारकड डी. एम.

अ.नं.	वर्ग	विषयाचे नाव	विषय शिक्षक
१	एफ. वाय. बी. कॉम.	वाणिज्य भूगोल	प्रा. डी. एम. मारकड
२	एस. वाय. बी. ए.	आपत्ती व्यवस्थापनाचा भूगोल (जी २)	प्रा. डी. एम. मारकड
३	एस. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस २)	प्रा. डी. एम. मारकड
४	टी. वाय. बी. ए.	भारताचा भूगोल (जी ३)	प्रा. डी. एम. मारकड

अभ्यासक्रम पूर्तता अहवाल २०१७ — २०१८

वर्ग— प्रथम वर्ष वाणिज्य (FYBCOM)

विषय —भूगोल (वाणिज्य भूगोल)

प्रा. डी. एम. मारकड

महिना	तासिका	घटक	उपघटक
जुन/जुलै २०१७	८	व्यापारी भूगोल	१. व्याख्या, स्वरूप आणि व्याप्ती २. व्यापारी भूगोलाच्या अभ्यासपद्धती
जुलै/ऑगस्ट २०१७	६	भौगोलिक पर्यावरण व वाणिज्य	१. मानवाचे आर्थिक व्यवसाय पर्यावरणाचे प्रकार आणि घटक अ) प्राकृतिक पर्यावरण ब) सांस्कृतिक पर्यावरण २. निसर्गवाद आणि शक्यतावाद
ऑगस्ट/ सप्टेंबर २०१७	५ ६	साधनसंपदा	अ) अर्थ, स्वरूप आणि साधनसंपदाचे उपयोग ब) जंगलाचे प्रकार, वैशिष्ट्ये, वितरण आणि आर्थिक महत्त्व क) अपारंपारिक उर्जासाधने — सौरउर्जा, पवनउर्जा आणि भरती उर्जा ड) शेती — भारतीय अर्थव्यवस्थेतील शेतीची भूमिका इ) शेतीचे प्रकार — उदरनिवाहक शेती, व्यापारी शेती, स्थलांतरीत शेती, मळयाची शेती, मंडई/बागायती शेती
सप्टेंबर/ ऑक्टोबर	५	लोकसंख्या	अ) संकल्पना — पर्याप्त, न्यून, आणि अतिरिक्त लोकसंख्या ब) भारतीय लोकसंख्येची वैशिष्ट्ये

२०१७	५		
डिसेंबर २०१७	५	उद्योगधंदे	अ) आर्थिक विकासामध्ये उद्योगधंद्यांची भूमिका ब) उद्योगधंद्याच्या स्थाननिश्चितीवर परिणाम करणारे घटक क) वेबरचा सिध्दांत ड) भारतातील प्रमुख उद्योगधंदे १. लोहपोलाद उद्योग २. सुती वस्त्र उद्योग ३. ॲटोमोबाईल उद्योग ४. माहिती तंत्रज्ञान उद्योग आणि महाराष्ट्र शासनाची धोरणे
जानेवारी २०१८	१०	व्यापार व वाहतूक	अ) आंतरराष्ट्रीय व्यापारावर परिणाम करणारे भौगोलिक घटक ब) भारताचा आंतरराष्ट्रीय व्यापार क) वाहतूकीचे मार्ग ड) आर्थिक विकासातील वाहतूकीचे मार्ग इ) वाहतूक मार्गांचे तुलनात्मक महत्त्व
फेब्रुवारी २०१८	१०	पर्यटन	अ) पर्यटनावर परिणाम करणारे भौगोलिक घटक ब) भारतातील पर्यटन उद्योग क) भारतातील देशांतर्गत व आंतरराष्ट्रीय पर्यटन ड) महाराष्ट्रातील कृषी पर्यटन इ) नजीकच्या स्थलांना क्षेत्रीय भेटी
मार्च २०१८	१२	संख्याशास्त्रीय पद्धती	अ) आलेख १) रेषालेख २) स्तंभालेख ब) नकाशे १) सममूल्य पद्धती २) छाया पद्धती क) विभाजीत वर्तूळ पद्धती

अभ्यासक्रम पूर्तता अहवाल

२०१७—२०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल (आपत्ती व्यवस्थापनाचा भूगोल) जी २

प्रा. डी. एम. मारकड

तुकडी — अ आणि ब

महिना	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/जुलै २०१७	१०	आपत्ती व संकट यांचा परिचय	व्याख्या आणि प्रकार	१) आपत्तीची व्याख्या व अर्थ, २) आपत्ती आणि भौगोलिक परिस्थिती यांचा सहसंबंध, ३) आपत्तींचे वर्गीकरण
जुलै/ऑगस्ट २०१७	१२	आपत्ती व्यवस्थापनाच्या पायाभूत संकल्पना	संज्ञा आणि संकल्पना	१) व्यवस्थापन संकल्पना २) आपत्ती व्यवस्थापनाची ध्येये आणि उद्दिष्ट्ये ३) आपत्तीपूर्व व्यवस्थापन ४) आपत्ती नंतरचे व्यवस्थापन

ऑगस्ट/ सप्टेंबर २०१७	१३	आपत्ती व्यवस्थापन संरचना	रचनात्मक आणि अरचनात्मक संरचना	१) आपत्ती व्यवस्थापन संरचनेच्या पायऱ्या — पूर्वतयारी, प्रतिसाद, पुनर्प्राप्ती, उपशमन, पुनर्वसन २) शासकीय पातळीवरील प्रमाणित कार्यपद्धती ३) आपत्ती व्यवस्थापनात प्रसार माध्यमांची भूमिका
सप्टेंबर/ ऑक्टोबर २०१७	१०	हवामान विषय आपत्ती आणि त्यांचे मूल्यमापन	कारणे, परिणाम, क्षेत्र आणि व्यवस्थापन	१) आवर्त एक आपत्ती २) दुष्काळ एक आपत्ती ३) पूर एक आपत्ती
डिसेंबर २०१७	१०	भूगर्भशास्त्रीय व भूरूपशास्त्रीय आपत्ती आणि त्यांचे व्यवस्थापन	कारणे, परिणाम, क्षेत्र आणि व्यवस्थापन	१) भूकंप एक आपत्ती २) भूस्खलन एक आपत्ती ३) त्सुनामी एक आपत्ती
जानेवारी २०१८	१२	मानवनिर्मित आपत्ती आणि त्यांचे व्यवस्थापन	कल, प्रकार, क्षेत्र, कारणे, परिणाम, आणि उपाययोजना	१) निर्वनीकरण २) वणवा एक आपत्ती ३) मृदा घूप ४) साधनसंपत्तीची अतिलूट
फेब्रुवारी २०१८	१०	वैश्विक समस्या आणि हालचाली	कारणे, परिणाम आणि संधारण	१) जागतिक तापमानवाढ २) ओझोन अपक्षय ३) आम्लपर्जन्य
मार्च २०१८	१३	आपत्ती व्यवस्थापन नमुना अभ्यास	भारतीय आणि जागतिक आपत्तींचे व्यवस्थापन	१) हिंदी महासागरातील त्सुनामी २००४ २) केदारनाथ ढगफुटी २०१३ ३) फुकुशिमा आणिवक आपत्ती २०११ ४) महाराष्ट्रातील गारपीट २०१४

अभ्यासक्रम पूर्तता अहवाल २०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय —भूगोल (प्रात्यक्षिक भूगोल) एस २

प्रा. डी. एम. मारकड

महिना	तासिका	घटक	उपघटक	अभ्यास घटक
जून २०१७ ते सप्टेंबर २०१७	२०	नकाशा प्रक्षेपण	१) नकाशा प्रक्षेपणाची गरज व्याख्या २) आणि आवश्यकता. ३) नकाशा प्रक्षेपणांच्या पद्धती आणि रचना यावरून वर्गीकरण	अ) खमध्य ध्रुवीय प्रक्षेपणे १) खमध्य ध्रुवीय केंद्रीय (गोमुखी) प्रक्षेपण २) खमध्य ध्रुवीय व्यासांतर प्रक्षेपण ब) शंकू प्रक्षेपणे १) एकप्रमाण अक्षवृत्त शंकू प्रक्षेपण २) बॉनचे प्रक्षेपण क) दंडगोल प्रक्षेपणे १) दंडगोल समक्षेत्र प्रक्षेपण

				२) मर्केटरचे प्रक्षेपण ड) सांकेतिक प्रक्षेपण मॉलविडचे प्रक्षेपण
ऑक्टोबर २०१७ आणि डिसेंबर २०१७	१५	आकडेवारी दर्शविण्याची विविध तंत्रे	आलेख आणि आकृत्या	१) साधा रेषालेख २) बहुरेषालेख ३) साधा स्तंभालेख ४) संयुक्त स्तंभालेख ५) विभाजित वर्तुळ ६) छाया पद्धती संगणकाच्या साहाय्याने आरेखन.
जानेवारी ते मार्च २०१८	१२	सांख्यिकीय आकडेवारी विश्लेषणाच्या पद्धती	१) समष्टी आणि नमुना २) सांख्यिकीय आकडेवारी आणि वारंवारता	१) समष्टी, नमुना, नमुना निवडीच्या पद्धती, नमुन्याची वैशिष्ट्ये २) ताळारेषा आणि वारंवारता सारणी ३) स्तंभालेख आणि बहुभुजाकृती ४) संकलित वारंवारता वक्र आणि कमाना वक्र

अभ्यासक्रम पूर्तता अहवाल

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल जी ३ (भारताचा प्रादेशिक भूगोल)

प्रा. डी. एम. मारकड
अ तुकडी

शैक्षणिक वर्ष २०१७ — २०१८

महिने	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/ जुलै २०१७	१०	भारताचा परिचय	स्थान, विस्तार आणि भूराजनीतिक महत्व	५. ऐतिहासिक पार्श्वभूमी ६. स्थान विस्तार ७. शेजारील देश आणि त्यांच्याशी संबंध ८. हिंदी महासागराचे भूराजनीतिक महत्व
जुलै २०१७	१२	प्राकृतिक रचना	महत्वाचे प्राकृतिक विभाग आणि महत्व	६. उत्तरेकडील पर्वतमय प्रदेश ७. उत्तर भारतीय मैदाने ८. भारतीय व्दिपकल्पीय पठार ९. किनारपट्टीचे मैदान १०. बेटे
ऑगस्ट सप्टेंबर २०१७	११	जलप्रणाली	भारतातील जलप्रणाली हिमालयीन नदीप्रणाली व्दिपकल्पीय नदीप्रणाली	सिंधू, गंगा, ब्रम्हपुत्रा, पूर्ववाहिनी नद्या महानदी, गोदावरी कृष्णा, कावेरी पश्चिम वाहिनी नद्या — नर्मदा, तापी, मही. कोकणातील नद्या. अंबा, दमणगंगा.
सप्टेंबर ऑक्टोबर २०१७	१२	हवामान	हवामानाची वैशिष्ट्ये, उगम, मोसमी	१. भारताच्या हवामानाची वैशिष्ट्ये. २. भारताच्या हवामानावर परिणाम करणारे घटक

			वान्याचा सिद्धांत	३. मोसमी वारे उगम आणि कार्य ४. भारतातील विविध ऋतू आणि हवामान
डिसेंबर २०१७	१२	मृदा आणि नैसर्गिक वनस्पती	प्रकार आणि वितरण	४. मृदेचे प्रकार आणि वर्गीकरण ५. मृदा धूप आणि संधारण ६. वनांचे प्रकार आणि वितरण
डिसेंबर २०१७ जानेवारी २०१८	१२	खनिजे आणि शक्तीसाधने	खनिजे शक्तीसाधने	५. लोहखनिज, मॅगनीज, बॉक्साईट आणि तांबे यांचे वितरण ६. उर्जासाधने ७. पारंपारिक उर्जासाधने — द. कोळसा, खनिज तेल, नैसर्गिक वायू. ८. अपारंपारिक उर्जासाधने — जलविद्युत, सौर उर्जा, पवनउर्जा, बायोगॅस, अणुउर्जा
जानेवारी फेब्रुवारी २०१८	११	भारतीय शेती	भारतीय शेतीचे महत्व आणि सद्यकालीन कल	१. शेतीचे भारतीय अर्थव्यवस्थेतील महत्व २. हरितक्रांती ३. धवलक्रांती ४. नीलक्रांती ५. पशुधन ६. हरितगृह
फेब्रुवारी मार्च २०१८	१०	नियोजन आणि विकास	प्रादेशिक विकास आणि नियोजन	१. संकल्पना, ध्येये, आवश्यकता, २. भारतातील प्रादेशिक नियोजन ३. महाराष्ट्रातील प्रादेशिक विकास

या शिवाय शैक्षणिक वर्ष २०१७ — २०१८ मध्ये महाविद्यालयातील विविध समित्यांमध्ये काम केले त्या पुढीलप्रमाणे

१. कार्यक्रम आणि उत्सव समिती	— प्रमुख
२. भूगोल अभ्यास मंडळ	— प्रमुख
३. परीक्षा समिती	— सदस्य
४. स्पर्धा परीक्षा	— सदस्य
५. सहल समिती	— सदस्य

दिनांक ३०/४/२०१८

प्रा. डी. एम. मारकड
भूगोल विभाग

खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरु महाविद्यालय

राजगुरुनगर, ता. खेड, जि. पुणे ४१०५०५

भूगोल विभाग

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ — २०१८ करिता

प्रा. एम. एल. मुळूक

अ.नं.	वर्ग	विषयाचे नाव	विषय शिक्षक
१	एफ. वाय. बी. ए.	भूरूपशास्त्राची मूलतत्त्वे (जी १)	प्रा. एम. एल. मुळूक
२	एस. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस २)	प्रा. एम. एल. मुळूक
३	टी. वाय. बी. ए.	लोकसंख्या आणि वस्ती भूगोल (एस ३)	प्रा. एम. एल. मुळूक
४	टी. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस ४)	प्रा. एम. एल. मुळूक

अभ्यासक्रम पूर्तता अहवाल

२०१७—२०१८

वर्ग—प्रथम वर्ष कला (FYBA)

विषय — भूगोल (भूरूपशास्त्राची मूलतत्त्वे) जी १

विषय शिक्षकांचे नाव — एम. एल. मुळूक

शैक्षणिक वर्ष २०१७ — २०१८

तुकडी — क

महिना	तासिका	घटक	उपघटक
जून २०१७	८	भूरूपशास्त्राची प्रस्तावना	अ) प्राकृतिक भूगोलाची प्रस्तावना आणि शाखा ब) भूरूपशास्त्र — व्याख्या, स्वरूप आणि व्याप्ती
जुलै/ऑगस्ट २०१७	६	पृथ्वी — मूलभूत संकल्पना	अ) पृथ्वीचा आकार आणि आकारमान, त्रिज्या, व्यास आणि परीघ, अक्षांश आणि अक्षवृत्ते ब) स्थानिकवेळ, प्रमाणवेळ, वेळप्रभाग, आंतरराष्ट्रीय वारेखा
ऑगस्ट २०१७	५ ६	पृथ्वी	अ) पृथ्वी—पृथ्वीचे अंतरंग—संघटन आणि रचना ब) खंड आणि महासागरांची निर्मिती ४. वेगनगरचा खंडवहन सिध्दांत ५. तबकडी भूविवर्तनकी सिध्दांत ६. सागरतळ पसरणीचा सिध्दांत
सप्टेंबर २०१७	५ ५	खडक	अ) खडक— खडकांची व्याख्या आणि निर्मिती ब) खडकांचे प्रकार ४. अग्निजन्य/अग्निज खडक ५. स्तरित / गाळाचे / जलजन्य खडक ६. रूपांतरीत/विकृत खडक
सप्टेंबर २०१७	५	भूप्रक्षोभक हालचाली	अ) भूगर्भीय हालचाली — व्याख्या आणि कारणे ब) भूप्रक्षोभक हालचालींचे प्रकार ३. संथ/मंद हालचाली

	५		वलीकरण प्रक्रिया प्रस्तरभंग ४. शीघ्र हालचाली ज्वालामुखी भूकंप
डिसेंबर २०१७	६	विदारण	अ) विदारणाची व्याख्या आणि अर्थ ब) विदारणाचे प्रकार ५. कायिक/यांत्रिक/भौतिक विदारण ६. रासायनिक विदारण ७. जैविक विदारण ८. मानव प्रणित विदारण क) जलचक्र
जानेवारी २०१८	६	खनन आणि संचयनाची कारके	अ) नदीच्या कार्यामुळे निर्माण होणारे भूआकार ब) वाऱ्याच्या कार्यामुळे निर्माण होणारे भूआकार
जानेवारी २०१८	८	शिलापदार्थाची हालचाल	अ) शिलापदार्थाची हालचाल—संकल्पना, व्याख्या, अर्थ ब) शिलापदार्थाच्या हालचालीचे प्रकार ६. मृदा घसरण ७. भूसखलन/भूमिपात ८. डबरप्रवाह ९. मृदाप्रवाह १०. हिमावसरण
फेब्रुवारी २०१८	६	उतार	अ) उतार — व्याख्या, अर्थ आणि संकल्पना ब) उताराचे प्रकार ८. अंतर्वक्र उतार ९. बहीर्वक्र उतार १०. उभा उतार ११. मंद उतार १२. तीव्र उतार १३. सम उतार १४. पायऱ्यापायऱ्याचा उतार
फेब्रुवारी/मार्च २०१८	६ ५ ४ ४	भूरूपशास्त्राचे उपयोजन	अ) मानवी क्रिया ६. वसाहती ७. वाहतूक ८. भूमी उपयोजन ९. खाणकाम १०. साधनसंपत्तीचे मूल्यमापन ब) पर्यावरणीय आपत्तीचे मूल्यांकन ५. भूमिपात ६. त्सुनामी ७. मृदा धूप ८. महापूर क) पाणलोट क्षेत्र व्यवस्थापन ड) क्षेत्र भेट/सहल—भूरूपांचे निरीक्षण करणे (दोन दिवसांपेक्षा कमी कालावधीसाठी)

अभ्यासक्रम पूर्तता अहवाल

२०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल (प्रात्यक्षिक भूगोल) एस २

प्रा. एम. एल. मुळूक

महिना	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/ऑगस्ट २०१७	१५	नकाशा आणि प्रमाण	नकाशा — व्याख्या, अर्थ आणि प्रकार	१) नकाशा — व्याख्या अर्थ आणि प्रकार २) नकाशा प्रमाण — व्याख्या आणि प्रकार, ३) ब्रिटिश आणि मेट्रिक मापन पद्धतीतील शब्दप्रमाण आणि अंकप्रमाण यांचे रूपांतर ४) साधी प्रमाणपट्टी तयार करणे ५) तुलनात्मक प्रमाणपट्टी तयार करणे.
सप्टेंबर २०१७ ते मार्च २०१८	४०	सर्वेक्षण	१) दिशा २) सर्वेक्षणाची व्याख्या ३) सर्वेक्षणाचे प्रकार	१) उत्तर दिशा ठरविण्याच्या पद्धती. यथार्थ उत्तर दिशा, चुंबकीय उत्तर दिशा, १) समतल फलक सर्वेक्षण — विकिरण पद्धती, आंतरछेदन अपूर्ण वेढा पद्धती २) लोलकीय होकायंत्र सर्वेक्षण — आंतरछेदन अपूर्ण वेढा पद्धती, आंतरछेदन पूर्ण वेढा पद्धती ३) जीपीएस सर्वेक्षण आणि आरेखन — अक्षवृत्ते, रेखावृत्ते आणि उंची आरेखन, क्ष आणि य आलेख अक्ष ४) डंपी संतलन — भू मापन व आरेखन
जानेवारी फेब्रुवारी २०१८	२०	सहल, क्षेत्र अभ्यास, गाव सर्वेक्षण व प्रयोगवही	देशातील कोणत्याही भौगोलिक पर्यटन स्थळांना भेटी/गावसर्वेक्षण	दोन दिवशीय लघु सहल किंवा पाच दिवशीय दीर्घ सहल.

अभ्यासक्रम पूर्तता अहवाल

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल (लोकसंख्या आणि वस्ती भूगोल) एस ३

प्रा. एम. एल. मुळूक

महिने	तासिका	घटक	उपघटक
जुन/जुलै २०१७	१०	प्रास्ताविक	१) लोकसंख्या भूगोल — व्याख्या, स्वरूप आणि व्याप्ती २) लोकसंख्या भूगोलाच्या अभ्यासाची गरज ३) लोकसंख्या भूगोलाच्या अभ्यास पद्धती ४) लोकसंख्याविषयक माहिती गोळा करण्याचे विविध मार्ग — जनगणना, राष्ट्रीय नमुना पहानी, नमुना पहणी नोंदवही, NFHS (राष्ट्रीय कुटुंब आरोग्य पाहानी), DLH

			(जिल्हास्तरीय कुटुंब पाहानी), इतर साधने
जुलै २०१७	१०	लोकसंख्या वैशिष्ट्ये	१) लोकसंख्येच्या वितरणावर आणि घनतेवर परिणाम करणारे घटक. २) जागतिक लोकसंख्या वितरण व भारतातील लोकसंख्या वितरणाची स्थिती ३) जागतिक व भारतीय लोकसंख्या वाढ ४) भारतीय लोकसंख्येची रचना — वयोरचना, लिंगरचना, ग्रामीण व शहरी लोकसंख्या, आर्थिक रचना
ऑगस्ट/सप्टेंबर २०१७	१४	लोकसंख्येची विविध अंगे	१) स्थलांतर — वर्गीकरण, स्थलांतरावर परिणाम करणारे घटक व स्थलांतराचे परिणाम, स्थलांतराचे नियम २) जनन, अनारोग्य आणि मर्त्यता, वैवाहिक स्थिती. ३) भारतातील मानव संसाधन विकास निर्देशांक. ४) स्मार्ट शहर व स्मार्ट खेडे यावर स्थलांतराचा होणारा परिणाम. ५) लोकसंख्याविषयक सिद्धांत — लोकसंख्या संक्रमण सिद्धांत (D.T.M.) माल्थसचा लोकसंख्याविषयक सिद्धांत
सप्टेंबर ऑक्टोबर २०१७	११	लोकसंख्या विषयक धोरण	१) सन २००० चे लोकसंख्या विषयक धोरण २) भारतातील कुटुंबकल्याण कार्यक्रम
डिसेंबर २०१७	१२	वस्ती भूगोलाची ओळख	१) वस्ती भूगोलाची व्याख्या, स्वरूप आणि व्याप्ती. २) वस्ती भूगोलाची वैशिष्ट्ये ३) वस्ती भूगोलाच्या विविध शाखा
डिसेंबर २०१७ जानेवारी २०१८	१०	मानव पर्यावरण सहसंबंध	१) वस्तीच्या वाढीवर व वितरणावर परिणाम करणारे घटक — प्राकृतिक, आर्थिक, सामाजिक, राजकीय घटक.
जानेवारी/फेब्रुवारी २०१८	१२	वस्ती	१) स्थळ, स्थिती, आकार, जागा, प्रकार.
फेब्रुवारी मार्च २०१८	११	वसाहत संकल्पना आणि नागरिकीकरण	१) नागरिकीकरण २) केंद्रीकरण ३) नागरी विभाग किंवा शहरी विभाग ४) ग्राम—नगर सिमान्त क्षेत्र ५) क्षेत्री—आकार नियम ६) स्मार्ट शहर ७) स्मार्ट खेडे ८) केंद्रीय व्यवहार विभाग ;व्यवहार ९) वसाहत श्रेणी

अभ्यासक्रम पूर्तता अहवाल २०१७ – २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल (प्रात्यक्षिक भूगोल) एस ४

प्रा.एम. एल. मुळूक

महिने	तासिका	घटक	उपघटक
जुलै/ऑगस्ट २०१७	१२	हवामानदर्शक नकाशांचे वाचन	अ) प्रस्तावना — हवामान दर्शक नकाशे. ब) हवामान दर्शक नकाशांचे वाचन करताना उपयुक्त सांकेतिक चिन्हे आणि खुणा (भारतीय हवामान खात्याकडून प्रमाणित) क) हवेच्या दाबाची प्रारूपे १) आवर्त २) प्रत्यावर्त ३) व्ही आकाराचे आवर्त ४) व्ही आकाराचे प्रत्यावर्त ५) तुल्यम आवर्त ५) कोल ड) हवामानशास्त्रीय नकाशांचे वाचन १. उन्हाळा २. पावसाळा ३. हिवाळा इ) हवामानशास्त्रीय उपकरणांचे निरीक्षण करण्यासाठी हवानशास्त्रीय प्रयोगशाळेस भेट
सप्टेंबर/ऑक्टो बर २०१७	१२	केंद्रीय प्रवृत्तीची परिमाणे	अ) भौगोलिक आकडेवारी आणि चल १) प्रादेशिक आणि काळानुरूप चल २) खंडीत आणि अखंडीत श्रेणी ३) वर्गीकृत आणि अवर्गीकृत श्रेणी ब) केंद्रीय प्रवृत्तीची परिमाणे १) सरासरी २) मध्यमान ३) मध्यगा ४) बहुलक प्रत्येकी दोन उदाहरणे
डिसेंबर २०१७	६	विचलनाची परिमाणे	अ) विचलन ब) प्रमाणित विचलन प्रत्येकी दोन उदाहरणे
जानेवारी २०१८	१०	सहसंबंध आणि समाश्रयण गृहीततत्वाच्या चाचण्या	अ) सहसंबंध आणि समाश्रयण १) सहसंबंध गुणांक २) पिअरमन पद्धती ३) स्पिअरमन पद्धती ४) समाश्रयण प्रत्येकी दोन उदाहरणे ब) गृहीततत्वाच्या चाचण्या १) परिमाणात्मक चाचण्या २) परिमाणरहीत चाचण्या ३) विमुक्त संख्यामापन ४) कायवर्ग चाचणी ५) स्टुडेंट 'टी' चाचणी
जानेवारी/फेब्रु वारी मार्च २०१८		क्षेत्र भेट / सहल गावसर्वेक्षण अहवाल लेखन	अ) दोन दिवसीय सहल किंवा मोठी सहल — किमान पाच दिवसांच्या कालावधीसाठी (संपूर्ण भारतात कोठेही) ब) गावसर्वेक्षण दोन्ही प्रात्यक्षिकांचे अहवाल लेखन

शैक्षणिक वर्ष २०१७ — २०१८ मध्ये खालील समित्या व उपक्रमांमध्ये सहभाग घेण्यात आला.

१. राष्ट्रीय सेवा योजना	— कार्यक्रम अधिकारी
२. प्लेसमेंट सेल	— प्रमुख
३. ग्रीन कॅम्पस समिती	— सदस्य
४. सांस्कृतिक विभाग	— सदस्य
५. क्रिडा विभाग	— सदस्य
६. शिस्त समिती	— सदस्य
७. कार्यक्रम आणि उत्सव समिती	— सदस्य

दिनांक ३०/४/२०१८

प्रा. एम. एल. मुळूक
भूगोल विभाग

खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरु महाविद्यालय

राजगुरुनगर, ता. खेड, जि. पुणे ४१०५०५

भूगोल विभाग

अभ्यासक्रम पूर्तता अहवाल

शैक्षणिक वर्ष २०१७ — २०१८ करिता

प्रा. गणेश मोढवे

अ.नं.	वर्ग	विषयाचे नाव	विषय शिक्षक
१	एफ. वाय. बी. ए.	भूरूपशास्त्राची मूलतत्वे (जी १)	प्रा. गणेश मोढवे
२	एस. वाय. बी. ए.	आपत्ती व्यवस्थापन (एस १)	प्रा. गणेश मोढवे
३	एस. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस २)	प्रा. गणेश मोढवे
४	टी. वाय. बी. ए.	भारताचा भूगोल (जी ३)	प्रा. गणेश मोढवे
५	टी. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस ४)	प्रा. गणेश मोढवे

अभ्यासक्रम पूर्तता अहवाल

२०१७—२०१८

वर्ग—प्रथम वर्ष कला (FYBA)

विषय — भूगोल (भूरूपशास्त्राची मूलतत्वे) जी १

विषय शिक्षकांचे नाव — प्रा. गणेश मोढवे

शैक्षणिक वर्ष २०१७ — २०१८

तुकडी — ड

महिना	तासिका	घटक	उपघटक
जून २०१७	८	भूरूपशास्त्राची प्रस्तावना	अ) प्राकृतिक भूगोलाची प्रस्तावना आणि शाखा ब) भूरूपशास्त्र — व्याख्या, स्वरूप आणि व्याप्ती
जुलै/ऑगस्ट २०१७	६	पृथ्वी — मूलभूत संकल्पना	अ) पृथ्वीचा आकार आणि आकारमान, त्रिज्या, व्यास आणि परीघ, अक्षांश आणि अक्षवृत्ते ब) स्थानिकवेळ, प्रमाणवेळ, वेळप्रभाग, आंतरराष्ट्रीय वाररेषा
ऑगस्ट २०१७	५ ६	पृथ्वी	अ) पृथ्वी—पृथ्वीचे अंतरंग—संघटन आणि रचना ब) खंड आणि महासागरांची निर्मिती १. वेगनगरचा खंडवहन सिध्दांत २. तबकडी भूविवर्तनकी सिध्दांत ३. सागरतळ पसरणीचा सिध्दांत
सप्टेंबर २०१७	५ ५	खडक	अ) खडक— खडकांची व्याख्या आणि निर्मिती ब) खडकांचे प्रकार १. अग्निजन्य/अग्निज खडक २. स्तरित / गाळाचे / जलजन्य खडक ३. रूपांतरीत/विकृत खडक
सप्टेंबर	५	भूप्रक्षोभक हालचाली	अ) भूगर्भीय हालचाली — व्याख्या आणि कारणे

२०१७	५		<p>ब) भूप्रक्षोभक हालचालींचे प्रकार</p> <p>५. संथ/मंद हालचाली वलीकरण प्रक्रिया प्रस्तरभंग</p> <p>६. शीघ्र हालचाली ज्वालामुखी भूकंप</p>
डिसेंबर २०१७	६	विदारण	<p>अ) विदारणाची व्याख्या आणि अर्थ</p> <p>ब) विदारणाचे प्रकार</p> <p>१. कायिक/यांत्रिक/भौतिक विदारण</p> <p>२. रासायनिक विदारण</p> <p>३. जैविक विदारण</p> <p>४. मानव प्रणित विदारण</p> <p>क) जलचक्र</p>
जानेवारी २०१८	६	खनन आणि संचयनाची कारके	<p>अ) नदीच्या कार्यामुळे निर्माण होणारे भूआकार</p> <p>ब) वाऱ्याच्या कार्यामुळे निर्माण होणारे भूआकार</p>
जानेवारी २०१८	८	शिलापदार्थांची हालचाल	<p>अ) शिलापदार्थांची हालचाल—संकल्पना, व्याख्या, अर्थ</p> <p>ब) शिलापदार्थांच्या हालचालीचे प्रकार</p> <p>१. मृदा घसरण</p> <p>२. भूसखलन/भूमिपात</p> <p>३. डबरप्रवाह</p> <p>४. मृदाप्रवाह</p> <p>५. हिमावसरण</p>
फेब्रुवारी २०१८	६	उतार	<p>अ) उतार — व्याख्या, अर्थ आणि संकल्पना</p> <p>ब) उताराचे प्रकार</p> <p>१. अंतर्वक्र उतार</p> <p>२. बहीर्वक्र उतार</p> <p>३. उभा उतार</p> <p>४. मंद उतार</p> <p>५. तीव्र उतार</p> <p>६. सम उतार</p> <p>७. पायऱ्यापायऱ्याचा उतार</p>
फेब्रुवारी/मार्च २०१८	६ ५ ४ ४	भूरूपशास्त्राचे उपयोजन	<p>अ) मानवी क्रिया</p> <p>१. वसाहती</p> <p>२. वाहतूक</p> <p>३. भूमी उपयोजन</p> <p>४. खाणकाम</p> <p>५. साधनसंपत्तीचे मूल्यमापन</p> <p>ब) पर्यावरणीय आपत्तीचे मूल्यांकन</p> <p>१. भूमिपात</p> <p>२. त्सुनामी</p> <p>३. मृदा धूप</p> <p>४. महापूर</p> <p>क) पाणलोट क्षेत्र व्यवस्थापन</p> <p>ड) क्षेत्र भेट/सहल—भूरूपांचे निरीक्षण करणे (दोन दिवसांपेक्षा कमी कालावधीसाठी)</p>

अभ्यासक्रम पूर्तता अहवाल

२०१७—२०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय —भूगोल (आपत्ती व्यवस्थापनाचा भूगोल) जी २

शैक्षणिक वर्ष २०१७ — २०१८

प्रा. जी. पी. मोढवे

तुकडी — ब

महिना	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/ऑगस्ट २०१७	१३	आपत्ती व्यवस्थापन संरचना	रचनात्मक आणि अरचनात्मक संरचना	१) आपत्ती व्यवस्थापन संरचनेच्या पायऱ्या — पूर्वतयारी, प्रतिसाद, पुनर्प्राप्ती, उपशमन, पुनर्वसन २) शासकीय पातळीवरील प्रमाणित कार्यपद्धती ३) आपत्ती व्यवस्थापनात प्रसार माध्यमांची भूमिका
सप्टेंबर ऑक्टोबर २०१७	१०	हवामान विषय आपत्ती आणि त्यांचे मूल्यमापन	कारणे, परिणाम, क्षेत्र आणि व्यवस्थापन	१) आवर्त एक आपत्ती २) दुष्काळ एक आपत्ती ३) पूर एक आपत्ती
डिसेंबर २०१७ जानेवारी २०१८	१०	वैश्विक समस्या आणि हालचाली	कारणे, परिणाम आणि संधारण	१) जागतिक तापमानवाढ २) ओझोन अपक्षय ३) आम्लपर्जन्य
फेब्रुवारी मार्च २०१८	१३	आपत्ती व्यवस्थापन नमुना अभ्यास	भारतीय आणि जागतिक आपत्तींचे व्यवस्थापन	१) हिंदी महासागरातील त्सुनामी २००४ २) केदारनाथ ढगफुटी २०१३ ३) फुकुशिमा आण्विक आपत्ती २०११ ४) महाराष्ट्रातील गारपीट २०१४

अभ्यासक्रम पूर्तता अहवाल २०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय —भूगोल (प्रात्यक्षिक भूगोल) एस २

प्रा. गणेश मोढवे

महिना	तासिका	घटक	उपघटक	अभ्यास घटक
जुन/जुलै २०१७	१५	नकाशा आणि प्रमाण	नकाशा — व्याख्या, अर्थ आणि प्रकार	१) नकाशा — व्याख्या अर्थ आणि प्रकार २) नकाशा प्रमाण — व्याख्या आणि प्रकार, ३) ब्रिटिश आणि मेट्रिक मापन पद्धतीतील शब्दप्रमाण आणि अंकप्रमाण यांचे रूपांतर ४) साधी प्रमाणपट्टी तयार करणे ५) तुलनात्मक प्रमाणपट्टी तयार करणे.
ऑगस्ट २०१७	२०	नकाशा प्रक्षेपण	१) नकाशा प्रक्षेपणाची गरज	अ) खमध्य ध्रुवीय प्रक्षेपणे १) खमध्य ध्रुवीय केंद्रीय (गोमुखी) प्रक्षेपण

ते सप्टेंबर २०१७			व्याख्या २) आणि आवश्यकता. ३) नकाशा प्रक्षेपणांच्या पद्धती आणि रचना यावरून वर्गीकरण	२) खमध्य ध्रुवीय व्यासांतर प्रक्षेपण ब) शंकू प्रक्षेपणे १) एकप्रमाण अक्षवृत्त शंकू प्रक्षेपण २) बॉनचे प्रक्षेपण क) दंडगोल प्रक्षेपणे १) दंडगोल समक्षेत्र प्रक्षेपण २) मर्कटरचे प्रक्षेपण ड) सांकेतिक प्रक्षेपण मॉलविडचे प्रक्षेपण
ऑक्टोबर २०१७ आणि डिसेंबर २०१७	१५	आकडेवारी दर्शविण्याची विविध तंत्रे	आलेख आणि आकृत्या	१) साधा रेषालेख २) बहुरेषालेख ३) साधा स्तंभालेख ४) संयुक्त स्तंभालेख ५) विभाजित वर्तुळ ६) छाया पद्धती संगणकाच्या साहाय्याने आरेखन.
जानेवारी ते मार्च २०१८	१०	सांख्यिकीय आकडेवारी विश्लेषणाच्या पद्धती	१) समष्टी आणि नमुना २) सांख्यिकीय आकडेवारी आणि वारंवारता	१) समष्टी, नमुना, नमुना निवडीच्या पद्धती, नमुन्याची वैशिष्ट्ये २) ताळारेषा आणि वारंवारता सारणी ३) स्तंभालेख आणि बहुभुजाकृती ४) संकलित वारंवारता वक्र आणि कमानी वक्र
ऑगस्ट २०१७ ते मार्च २०१८	४०	सर्वेक्षण	१) दिशा २) सर्वेक्षणाची व्याख्या ३) सर्वेक्षणाचे प्रकार	१) उत्तर दिशा ठरविण्याच्या पद्धती. यथार्थ उत्तर दिशा, चुंबकीय उत्तर दिशा, १) समतल फलक सर्वेक्षण — विकिरण पद्धती, आंतरछेदन अपूर्ण वेढा पद्धती २) लोलकीय होकायंत्र सर्वेक्षण — आंतरछेदन अपूर्ण वेढा पद्धती, आंतरछेदन पूर्ण वेढा पद्धती ३) जीपीएस सर्वेक्षण आणि आरेखन — अक्षवृत्ते, रेखावृत्ते आणि उंची आरेखन, क्ष आणि य आलेख अक्ष ४) डंपी संतलन — भू मापन व आरेखन
जानेवारी फेब्रुवारी २०१८	२०	सहल, क्षेत्र अभ्यास, गाव सर्वेक्षण व प्रयोगवही	देशातील कोणत्याही भौगोलिक पर्यटन स्थळांना भेटी/ गावसर्वेक्षण	दोन दिवशीय लघु सहल किंवा पाच दिवशीय दीर्घ सहल.

अभ्यासक्रम पूर्तता अहवाल

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल जी ३ (भारताचा प्रादेशिक भूगोल)

प्रा. मोढवे जी. पी.

शैक्षणिक वर्ष २०१७ — २०१८

ब तुकडी

महिने	तासिका	घटक	उपघटक	अभ्यास घटक
जून ते ऑगस्ट २०१७	११	जलप्रणाली	भारतातील जलप्रणाली हिमालयीन नदीप्रणाली व्दिपकल्पीय नदीप्रणाली	सिंधू, गंगा, ब्रम्हपुत्रा, पूर्ववाहिनी नद्या महानदी, गोदावरी कृष्णा, कावेरी पश्चिम वाहिनी नद्या — नर्मदा, तापी, मही. कोकणातील नद्या. अंबा, दमणगंगा.
सप्टेंबर ऑक्टोबर २०१७	१२	हवामान	हवामानाची वैशिष्ट्ये, उगम, मोसमी वाऱ्याचा सिद्धांत	भारताच्या हवामानाची वैशिष्ट्ये. भारताच्या हवामानावर परिणाम करणारे घटक मोसमी वारे उगम आणि कार्य भारतातील विविध ऋतू आणि हवामान
डिसेंबर २०१७ जानेवारी २०१८	११	भारतीय शेती	भारतीय शेतीचे महत्व आणि सद्यकालीन कल	शेतीचे भारतीय अर्थव्यवस्थेतील महत्व हरितक्रांती धवलक्रांती नीलक्रांती पशुधन हरितगृह
फेब्रुवारी मार्च २०१८	१०	नियोजन आणि विकास	प्रादेशिक विकास आणि नियोजन	संकल्पना, ध्येये, आवश्यकता, भारतातील प्रादेशिक नियोजन महाराष्ट्रातील प्रादेशिक विकास

अभ्यासक्रम पूर्तता अहवाल २०१७ — २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल (प्रात्यक्षिक भूगोल) एस ४

प्रा. गणेश मोढवे

महिने	तासिका	घटक	उपघटक
जुलै/ऑगस्ट २०१७	१५	भारततीय स्थलदर्शक नकाशे	अ) भारतीय स्थलदर्शक नकाशांचा अभ्यास प्रस्तावना १. सामासिक माहिती २. वृत्तजाळी संदर्भ ३. सांकेतिक चिन्हे आणि खुणा ब) स्थलदर्शक नकाशांचे प्रकार/निर्देशांक १. १:१०००००० दशलक्षी नकाशे २. १:२५०००० पावडंची नकाशे ३. १:१००००० अर्धा इंची नकाशे ४. १:५०००० एक इंची नकाशे ५. १:२५००० ६. १:५००० नागरी आणि पर्यटन स्थळांचे नकाशे
सप्टेंबर/ऑक्टो	१५	उठाव	अ) उठाव दर्शविण्याच्या पद्धती

बर २०१७		दर्शविण्याच्या पध्दती	<p>१) गुणात्मक पध्दती — हॅच्युर्स, छाया पध्दती, रंग पध्दती.</p> <p>२) संख्यात्मक पध्दती — समोच्च रेषा, आकार रेषा, बेंच मार्क, स्थल उंचाक, त्रिकोणामिती पध्दती, तुलनात्म उंची</p> <p>ब) समोच्च रेषांच्या साह्याने उठाव व्यक्त करण्याच्या पध्दती</p> <p>उतारांचे प्रकार</p> <p>१) अंतर्वक्र उतार २) बर्हिर्वक्र उतार ३) उभा उतार</p> <p>४) तीव्र उतार ५) मंद उतार ६) सम उतार</p> <p>७) विषम उतार ८) पायऱ्या पायऱ्याचा उतार</p> <p>भूरूपांचे प्रकार</p> <p>१) शंकवाकृती टेकडी २) पठार</p> <p>३) सुळका ४) खिंड ५) कडा ६) धबधबा</p> <p>क) छेद तयार करणे</p> <p>१) छेद तयार करण्याच्या पध्दती</p> <p>३. कागदी पट्टीच्या साह्याने छेद तयार करणे.</p> <p>४. दोऱ्याच्या साह्याने छेद तयार करणे.</p> <p>१) स्थलनिर्देशक नकाशामधील कोणत्याही भूप्रदेशाचा समोच्च रेषांच्या साह्याने छेद तयार करणे.</p> <p>२) नदीचा आणि रस्त्याचा छेद तयार करणे.</p>
डिसेंबर २०१७ जानेवारी २०१८	१५	स्थलदर्शक नकाशांचे निरीक्षण, वाचन आणि माहिती संकलन	<p>अ) स्थलदर्शक नकाशांचे वाचन</p> <p>१) पर्वतीय प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>२) पठारी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>२) मैदानी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन</p> <p>ब) क्षेत्र भेट — भूरूपांचे निरीक्षण आणि ओळख करून घेण्यासाठी एक दिवसीय क्षेत्र भेट आणि त्याचे संक्षिप्त अहवाल लेखन.</p>
फेब्रुवारी/मार्च २०१८	१५ ५	भौगोलिक माहिती प्रणाली आणि सुदूर संवेदन प्रणालीचे भूगोल विषयातील उपयोजन	<p>अ) हवाई छायाचित्रे आणि उपग्रह प्रतिमा — प्रास्ताविक</p> <p>१) हवाई छायाचित्रांचे वाचन</p> <p>२) उपग्रहीय प्रतिमांचे वाचन</p> <p>ब) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचे वाचन करताना संगणकाचे उपयोजन</p> <p>क) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचा अभ्यास करण्याकरीता ओपन सोर्स सॉफ्टवेअर माहिती</p>
जुलै/ऑगस्ट २०१७	१२	हवामानदर्शक नकाशांचे वाचन	<p>अ) प्रस्तावना — हवामान दर्शक नकाशे.</p> <p>ब) हवामान दर्शक नकाशांचे वाचन करताना उपयुक्त सांकेतिक चिन्हे आणि खुणा (भारतीय हवामान खात्याकडून प्रमाणित)</p> <p>क) हवेच्या दाबाची प्रारूपे</p> <p>१) आवर्त २) प्रत्यावर्त ३) व्ही आकाराचे आवर्त ४) व्ही आकाराचे ५) प्रत्यावर्त ६) दुय्यम आवर्त ५) कोल</p>

			ड) हवामानशास्त्रीय नकाशांचे वाचन उन्हाळा, पावसाळा, हिवाळा इ) हवामानशास्त्रीय उपकरणांचे निरीक्षण करण्यासाठी हवामानशास्त्रीय प्रयोगशाळेस भेट
सप्टेंबर/ऑक्टोबर २०१७	१२	केंद्रीय प्रवृत्तीची परिमाणे	अ) भौगोलिक आकडेवारी आणि चल १) प्रादेशिक आणि काळानुरूप चल २) खंडीत आणि अखंडीत श्रेणी ३) वर्गीकृत आणि अवर्गीकृत श्रेणी ब) केंद्रीय प्रवृत्तीची परीमाणे १) सरासरी २) मध्यमान ३) मध्यगा ४) बहुलक प्रत्येकी दोन उदाहरणे
डिसेंबर २०१७	६	विचलनाची परिमाणे	अ) विचलन ब) प्रमाणित विचलन प्रत्येकी दोन उदाहरणे
जानेवारी २०१८	१०	सहसंबंध आणि समाश्रयण गृहीततत्त्वाच्या चाचण्या	अ) सहसंबंध आणि समाश्रयण १) सहसंबंध गुणांक २) पिअरमन पद्धती ३) स्पिअरमन पद्धती ४) समाश्रयण प्रत्येकी दोन उदाहरणे ब) गृहीततत्त्वाच्या चाचण्या १) परिमाणात्मक चाचण्या २) परिमाणरहीत चाचण्या ३) विमुक्त संख्यामापन ४) कायवर्ग चाचणी ५) स्टुडेंट 'टी' चाचणी
जानेवारी/फेब्रुवारी मार्च २०१८		क्षेत्र भेट / सहल गावसर्वेक्षण अहवाल लेखन	अ) दोन दिवसीय सहल किंवा मोठी सहल — किमान पाच दिवसांच्या कालावधीसाठी (संपूर्ण भारतात कोठेही) ब) गावसर्वेक्षण दोन्ही प्रात्यक्षिकांचे अहवाल लेखन

शैक्षणिक वर्ष २०१७ — २०१८ मध्ये खालील समित्या व उपक्रमांमध्ये सहभाग घेण्यात आला.

१. राष्ट्रीय सेवा योजना	— सदस्य
२. क्रिडा विभाग	— सदस्य
३. शिस्त समिती	— सदस्य
४. पर्यावरण समिती	— सदस्य

दिनांक ३०/४/२०१८

प्रा. जी. पी. मोढवे
भूगोल विभाग

प्रा. दिलीप मुळूक
भूगोल विभाग प्रमुख

डॉ. एस. बी. पाटील
प्राचार्य

K. T. S. P. Mandal's
Hutatma Rajguru Mahavidyalaya , Rajgurunagar
Department Of Statistics
Teaching Plan
Academic Year 2017-18

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.Sc	Descriptive Statistics	Thorat S.R.
2	F.Y.B.Sc	Discrete Probability Distributions	Thorat S.R.

Paper : Descriptive Statistics

Class: F.Y.B.Sc

Month	Topic	Subtopic
June/July 2017	1. Introduction to Statistics 2. Population and Sample	1.1 Meaning of Statistics as a Science. 1.2 Importance of Statistics. 1.3 Scope of Statistics: 1.4 Statistical organizations in India and their functions: 2.1 Types of characteristics: 2.2 Types of data: 2.3 Notion of a statistical population 2.4 Methods of sampling
August 2017	3. Summary Statistics	3.1 Classification 3.2 Measures of Central Tendency Arithmetic Mean (A.M.), median, mode Partition Values: Quartiles, Deciles and Percentiles Geometric Mean, Harmonic Mean, Weighted Mean 3.3 Measures of Dispersion Range, Semi-interquartile range, Mean deviation, Variance and standard deviation, Mean squared deviation coefficient of variation

Sept/Oct 2017	4. Moments, Skewness and Kurtosis	4.1 Raw moments (m'_r) for ungrouped and grouped data 4.2 Central moments (m_r) for ungrouped and grouped data 4.3 Relations between central moments and raw moments, upto 4-th order 4.4 Concept of skewness of frequency distribution, positive skewness, negative skewness, symmetric frequency distribution. 4.5 Bowley's coefficient of skewness 4.6 Karl Pearson's coefficient of skewness. 4.7 Measures of skewness based on moments (β_1, γ_1). 4.8 Concepts of kurtosis, leptokurtic, mesokurtic and platykurtic frequency distributions. 4.9 Measures of kurtosis based on moments (β_2, γ_2).
Nov/ Dec 2017	5. Theory of Attributes	5.1 Attributes: 5.2 Consistency of data upto 2 attributes. 5.3 Concepts of independence and association of two attributes. 5.4 Yule's coefficient of association (Q), $-1 \leq Q \leq 1$, interpretation.
January 2018	6. Correlation	6.1 Bivariate data, Scatter diagram and interpretation. 6.2 Concept of correlation between two variables 6.3 Covariance between two variables (m_{11}) : 6.4 Karl Pearson's coefficient of correlation (r) 6.5 Spearman's rank correlation coefficient: compute Karl Pearson's correlation coefficient between ranks.
February 2018	7. Linear Regression Model	7.1 Meaning of regression 7.2 Simple linear regression model: $Y = a + bX + \varepsilon$ 7.3 Concept of residual, plot of residual, coefficient of determination
Feb/Mar 2018	8. Fitting of curves to the bivariate data Fitting of curves to the bivariate data	8.1 Fitting of line ($Y = a + bX$), 8.2 Fitting of second degree curve 8.3 Fitting of exponential uncorrelatedness of two variables. 8.6 Variance of linear combination of variables $\text{Var}(aX + bY)$. Correlation coefficient

	9 Index Numbers	<p>9.1 Introduction.</p> <p>9.2 Definition and Meaning.</p> <p>9.3 Problems/considerations in the construction of index numbers.</p> <p>9.4 Simple and weighted price index</p> <p>9.5 Simple and weighted price index</p> <p>9.6 Laspeyre's, Paasche's and Fisher's Index numbers.</p> <p>9.7 Consumer price index number</p> <p>(i) family budget method</p> <p>(ii) aggregate expenditure method.</p> <p>9.8 Shifting of base, splicing, deflating, purchasing power.</p> <p>9.9 Description of the BSE sensitivity and similar index numbers.</p>
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Paper : Discrete Probability Distributions**Class: F.Y.B.Sc**

Month	Topic	Subtopic
June/July 2017	1. Review of probability, conditional probability, independence	<p>1.1 Experiments/Models, Ideas of deterministic and non-deterministic models. Random Experiment, concept of statistical regularity.</p> <p>1.2 Definitions of - (i) Sample space, (ii) Discrete sample space: finite and countably infinite, (iii) Event, (iv) Elementary event, (v) Complement of an event. (vi) Certain event (vii) Impossible event</p> <p>1.3 Concept of occurrence of an event.</p> <p>1.4 Algebra of events and its representation in set theory notation. Occurrence of following events. (i) at least one of the given events, (ii) none of the given events, (iii) all of the given events, (iv) mutually exclusive events, (v) mutually exhaustive events, (vi) exactly one event out of the given events.</p> <p>1.5 Classical definition of probability and its limitations.</p> <p>1.6 Probability model, probability of an event, equiprobable and non-equiprobable sample space,</p> <p>1.7 Axiomatic definition of probability.</p> <p>1.8 Definition of conditional probability of an event.</p> <p>1.9 Definition of independence of two events $P(A \cap B) = P(A) \cdot P(B)$</p> <p>1.10 Pairwise independence and mutual independence for three events</p> <p>1.11 Multiplication theorem $P(A \cap B) = P(A) \cdot P(B|A)$. Generalization to $P(A \cap B \cap C)$.</p>
August 2017	2. Bayes' Theorem	<p>2.1 Partition of the sample space</p> <p>2.2 Proof of Bayes' theorem. Applications of Bayes' theorem in real life</p>

	3. Univariate Probability Distributions (Defined on Discrete Sample Space)	<p>3.1 Concept and definition of a discrete random variable.</p> <p>3.2 Probability mass function (p.m.f.) and cumulative distribution function (c.d.f.), $F(\cdot)$ of discrete random variable, properties of c.d.f..</p> <p>3.3 Mode and median of a univariate discrete probability distribution</p>
Septmber 2017	4. Mathematical Expectation (Univariate Random Variable)	<p>4.1 Definition of expectation (Mean) of a random variable, expectation of a function of a random variable, m.g.f. and c.g.f. Properties of m.g.f and c.g.f.</p> <p>4.2 Definitions of variance, standard deviation (s.d.) and Coefficient of variation (c.v.) of univariate probability distribution, effect of change of origin and scale on mean, variance and s.d.</p> <p>4.3 Definition of raw, central and factorial raw moments of univariate probability Distributions and their interrelations (without proof).</p> <p>4.4 Coefficients of skewness and kurtosis based on moments.</p>
October 2017	5. Some Standard Discrete Probability Distributions - I	<p>5.1 Degenerate distribution, mean and variance</p> <p>5.2 Uniform discrete distribution, p.m.f., c.d.f., mean, variance, real life situations, comments on mode and median</p> <p>5.3 Bernoulli Distribution: p.m.f., mean, variance</p> <p>5.4 Binomial Distribution: p.m.f., mean, variance</p> <p>5.5 Hypergeometric Distribution : p.m.f., Computation of probability, situations where this distribution is applicable, binomial approximation to hypergeometric probabilities, mean and variance of the distribution</p>
Nov/ Dec 2017	6. Some Standard Discrete Probability	<p>6.1 Poisson distribution: m.g.f. and c.g.f. Moments, mean, variance, skewness and kurtosis</p> <p>6.2 Geometric distribution:</p>

	Distributions - II	Mean, variance, m.g.f. and c.g.f.
January 2018	7. Bivariate Discrete Probability Distribution	<p>7.1 Definition of two-dimensional discrete random variable, its joint p.m.f. and its distribution function and their properties</p> <p>7.2 Computation of probabilities of events in bivariate probability distribution.</p> <p>7.3 Concepts of marginal and conditional probability distributions.</p> <p>7.4 Independence of two discrete random variables based on joint and marginal p.m.f.s</p>
Feb/Mar 2018	8. Mathematical Expectation (Bivariate Random Variable)	<p>8.1 Definition of raw and central moments, m.g.f, c.g.f.</p> <p>8.2 Theorems on expectations</p> <p>8.3 Conditional expectation.</p> <p>8.4 Definitions of conditional mean and conditional variance.</p> <p>8.5 Definition of covariance, coefficient of correlation, independence and uncorrelatedness of two variables.</p> <p>8.6 Variance of linear combination of variables $\text{Var}(aX + bY)$. Correlation coefficient</p>

Thorat S.R.

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.C.S.	Statistical Methods-I	Wayal.V.M
2	F.Y.B.Com	Business Mathematics and Statistics	Wayal.V.M
3	F.Y.B.C.A	Computer Applications in Statistics	Wayal.V.M

Paper: Statistical Methods-I

Class: F.Y.B.C.S

Month	Topic	Subtopic
July 2017	1.Data Condensation and graphical methods	1.1 Raw data, attributes and variables, discrete and continuous variables. 1.2 Presentation of data using frequency distribution and cumulative frequency distribution 1.3 Graphical presentation of frequency distribution-histogram, stem and leaf chart, less than and more than ogive curves. 1.4 Numerical problems related to real life situations.
	2. Review/ Revision of Descriptive Statistics	2.1 Measures of central tendency: Mean, Mode, Median Examples where each of these is most appropriate 2.2 Partition values: Quariles, Deciles, Percentiles, Box plot 2.3 Measures of Dispersion: Variance, Standard deviation, Coefficient of variation
August 2017	3.Moments	3.1 Raw and central moments 3.2 Relation between raw and central values upto fourth order 3.3 Numerical problems related moments
	4. Measures of Skewness and Kurtosis Discrete Sample Space)	3.1 Concept and definition of a discrete random variable. 4.1 Concept of symmetric frequency distribution, skewness, positive and negative skewness 4.2 Measures of skewness- Pearson's measure, Bowley's measure (β_1, γ_1) 4.3 kurtosis of a frequency distribution, Measures of kurtosis (β_2, γ_2) based upon moments, types of kurtosis:

		(β_1, γ_1) tokurtic , platykurtic, mesokurtic 4.5 Numerical problems
Septmber 2017	5. Discrete Random Variable	5.1 Definition of random variable and discrete random variable 5.2 Definition of probability mass function, distribution function and its properties 5.3 Definition of expectation and variance, theorem on expectation 5.4 Determination of median and mode using p.m.f. 5.5 Numerical problems
Sept/Oct 2017	6. Standard Discrete Distributions	6.1 Discrete Uniform Distribution: definition, mean, variance 6.2 Bernoulli Distribution 6.3 Binomial Distribution 6.4 Geometric Distribution: 6.5 Poisson Distribution: 6.6 Illustration of real life situations 6.7 Numerical problems
Nov/ Dec 2017	7. Correlation (for bivariate raw data)	7.1 Bivariate data, scatter diagram 7.2 correlation 7.3 Karl Pearson's coefficient of correlation, limit of r 7.4 interpretation of r, coefficient of determination, Auto correlation 7.5 Numerical problems
Dec 2017	8. Regression	8.1 Regression 8.2 linear Regression 8.3 Fitting of straight line using least square method 8.4 Properties of Regression coefficients 8.5 Non linear Regression: second degree curve, growth curve 8.6 Residual plot, mean residual sum of squares 8.7 Numerical problems
Jan/Feb 2018	9. Multiple and partial correlation and Regression (for trivariate data)	9.1 Yule's notation and concept of multiple regression 9.2 Fitting of multiple Regression plane 9.3 Partial Regression coefficient 9.4 Multiple correlation coefficient 9.5 Partial correlation coefficient 9.6 Numerical problems

	5-Measures of central tendency	sampling method Variables, classification of data frequency distribution graph mean ,median & mode examples
Nov 2017	6-Profit and Loss	cost price, market, selling price trade & cash discount commission & brokerage examples
Dec 2017	7-Linear programming problems 8-measures of Dispersion	Definition formulation of lpp graphical method example concept of dispersion measures of dispersion measures of relative dispersion examples
Jan 2018	9- correlation & regression	Data, scatter diagram Karl pearson's coefficient correlation rank correlation regression examples
Feb 2018	10-index number	concept and construction of index number Laspeyers , paasches & fisher index no family budget & expenditure method sensx & nifty examples

Paper : Computer Applications in Statistics Class: F.Y.B.C.A

Month	Topic	Subtopic
December 2017	1. Methods of counting and Fundamental Principals of Counting	1. Principals of counting 2. Permutations and combinations 3. Examples and problems
	2. Elements of Probability Theory	1. Random experiments, sample space, events, algebra of events. 2. Classical definition of probability, addition theorem of probability, Independence of events, Simple numerical problems.
Jan / Feb 2018	3. Standard Discrete Distributions	1. Discrete Uniform : Probability Distribution, c.d.f. mean, variance (without proof) 2. Bernoulli : probability distribution, mean, variance 3. Binomial : probability distribution, c.d.f., mean, variance, 4. Examples and problems.
March 2018	4. Simulation Techniques	1. Random Number Generator 2. Model sampling from discrete uniform and binomial distributions 3. Monte Carlo Simulation examples and problems.

Wayal V.M.

Sr.No	Class	Paper	Name of Teacher
1	F.Y.B.C.S.	Statistical Methods-II	Shah N.S.
2	F.Y.B.Com	Business Mathematics and Statistics	Shah N.S.

Paper : Statistical Methods-II

Class: F.Y.B.C.S

Month	Topic	Subtopic
July 2017	1. Detailed Review / Revision of Theory of Probability	1.1 Counting Principles, Permutation, and Combination. 1.2 Deterministic and non-determination models. 1.3 Random Experiment, Sample Spaces (finite and countably infinite) 1.4 Events: types of events, Operations on events. 1.5 Probability - classical definition, probability models, axioms of probability, probability of an event. 1.6 Theorems of probability (with proof) i) $0 \leq P(A) \leq 1$ ii) $P(A) + P(A') = 1$ iii) $P(A) \leq P(B)$ when $A \subset B$ iv) $P(A \cup B) = P(A) + P(B) - P(A \cap B)$ 1.7 Numerical problems related to real life situations
August 2017	2. Advanced Theory of Probability	2.1 Concepts and definitions of conditional probability, multiplication theorem $P(A \cap B) = P(A) \cdot P(B|A)$ 2.2 Bayes' theorem (without proof) 2.3 Concept of Posterior probability, problems on posterior probability. 2.4 Definition of sensitivity of a procedure, specificity of a procedure. Application of Bayes' theorem to design a procedure for false positive and false negative. 2.5 Concept and definition of independence of two events. 2.6 Numerical problems related to real life situations.
Sept /Oct 2017	3. Continuous Random Variable	3.1 Definition of continuous random variable (r. v.), 3.2 Probability density function (p.d.f.), 3.3 Cumulative distribution function (c.d.f.), its

		5. Numerical problems related to real life situations.
Feb 2018	8. Test based on Chi-square distribution 9. Non parametric tests 10. Simulation	1. chi-square test for goodness of fit 2. Test for independence of attributes. 3. Test for significance of variation for a population. 4. Numerical problems related to real life situations. 1. Run test 2. Sign test 3. Kolmogorov-Smirnov test 4. Mann-Whitney test 5. Numerical problems related to real life situations. 1. Introduction, merits and demerits and pitfall 2. Pseudo-random number generator 3. Model Sampling from uniform and exponential distribution

Month	Topic	Subtopic
July 2017	1-Preliminaries	Natural no & integers H.C.F & M.C.F fraction Laws of indices ratio & percentage, proportion
August 2017	2-Interest	simple interest compound interest EMI Examples
	3-Shares and Dividends	Concept of shares ,face value, market value , net asset value Equity shares and preference shares Dividend Bonus shares Examples
Sept 2017	4-Population & sample	Definition & concept of statistics scope of statistics concept of population & sample sampling method
	5-Measures of central tendency	Variables, classification of data frequency distribution graph mean ,median & mode examples
Nov 2017	6-Profit and Loss	cost price, market, selling price trade & cash discount commission & brokerage examples

Dec 2017	7-Linear programming problems 8-measures of Dispersion	Definition formulation of lpp graphical method example concept of dispersion measures of dispersion measures of relative dispersion examples
Jan 2018	9- correlation & regression	Data, scatter diagram Karl pearson's coefficient correlation rank correlation regression examples
Feb 2018	10-index number	concept and construction of index number Laspeyers , paasches & fisher index no family budget & expenditure method sensx & nifty examples

Shah N.S.

K.T.S.P.Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA, RAJGUR

DEPARTMENT OF MATHEMATICS

SYLLABUS OMPLETION REPORT

ACADEMIC YEAR - 2017-18

Sr. No.	Class	Subject	Name of Teacher
1	F.Y.B.Sc.	Algebra & Geometry	Prof. Wayal Prof. Telang
		Calculus & Differential Equation	Prof. Karle S
2	S.Y.B.Sc.	Calculus of Multivariable	Prof. Wayal
		Laplace Transform & Fourier Series	Prof. Wayal
		Linear Algebra	Prof. Karle S
		Numerical Methods &	Prof. Kawad

		its Applications	
3	F.Y.B.Cs.	Discrete Mathematics	Prof. Telang
		Algebra & Calculus	Prof. Karle S
4	S.Y.B.Cs.	Applied Algebra	Prof. Karle S
		Numerical Analysis	Prof. Telang
		Computational Geometry	Prof. Telang
		Operation Research	Prof. Kawad
5	S.Y.B.B.A.	Business Mathematics	Prof. Karle S
6	F.Y.B.Com.	Business Mathematics	Prof. Telang
		& Statistics	Prof. Kawad

Name:-Prof. Wayal R.M.

Sr. No.	Class	Subject
1	F.Y.B.Sc.	Algebra & Geometry
2	S.Y.B.Sc.	Calculus of Multivariable (SEM-I)
		Laplace Transform & Fourier Series (SE

Class - F.Y.B.Sc.

Subject:- Algebra & Geom

Name:-Prof. Wayal R.M. & Prof. Telang G.S.

Month	Topic
July	Well Ordering Principle for \mathbb{N} . Principle of Mathematical induction (strong form). Divisibility in \mathbb{Z} : Definition and elementary properties. Division Algorithm, Euclidean Algorithm (Without proof) G.C.D. and L.C.M of integers, Relatively prime integers Definition Prime numbers ,Euclid's lemma, Basic properties of G.C.D., G.C.D of any two integers exists is unique and can be expressed in the form $ax+by$ where $x,y \in \mathbb{Z}$. Equivalence Relations, Equivalence classes, properties of Equivalence classes, Definition of partition, every partition gives an equivalence relation and vice-versa.
August	Definition of Congruence, Congruence as equivalence relation , Residue classes, Partition of \mathbb{Z} , Addition modulo n , Multiplication modulo n . Definition of polynomial, Degree of polynomial, Algebra of polynomials, Division algorithm (without proof). G.C.D of two polynomials (without proof)

	Remainder Theorem, Factor Theorem. Relation between the roots and the coefficients of a polynomial, Examples.
September	Echelon form, Definition of rank of a matrix by using echelon form. System of linear equations, Matrix form of system of linear equations, Homogeneous and non-homogeneous system of linear equations, Gauss Elimination and Gauss Jordan Method. Consistency of a system of linear equations, conditions of consistency (without proof). Eigen values, Eigen vectors, characteristic equation of a matrix of order up to 3×3 . Statement of Cayley Hamilton theorem and its use to find the inverse of a matrix.
October	Eigen values, Eigen vectors, characteristic equation of a matrix of order up to 3×3 , Statement of Cayley Hamilton theorem and its use to find the inverse of a matrix.

TERM - SECOND

November	Change of axes, Translation and rotation. Conic Section: General equation of second degree in x and y. Revision: Equations of the first degree in x, y, z Transformation to the normal form
	, determination of plane under given conditions, Equations of the plane through three given points. Systems of planes, two

December	sides of a plane. Length of the perpendicular from a point to a plane, bisectors of angles between two planes. Joint equations of two planes, Angle between planes. Revision: Equations of a straight line, equations of a straight line in terms of its direction cosines and the co-ordinates of a point on it, equations of a line through two points,
January	Symmetrical and unsymmetrical forms of the equations of a straight line. transformation of the equations of a line to the symmetrical form. Angle between a line and a plane. The condition that a given line may lie in a given plane, the condition that two given lines are coplanar. Number of arbitrary constants in the equations of a straight line, sets of conditions which determine a line. The shortest distance between two lines, the length and equations of the line of shortest distance between two straight lines, length of perpendicular from a point to a given line.
February	Definition and equation of the sphere in various forms. Plane section of a sphere, intersection of two spheres. Equation of a circle, sphere through a given circle, intersection of a sphere and a line. Equation of a tangent plane. Definition of cone and cylinder. Equation of cone and cylinder with vertex

	at origin and α, β, γ . The right circular cone, equation of a right circular cone. The right circular cylinder, equation of a right circular cylinder
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Class - S.Y.B.Sc.

Subject:- Multivariable Calculus

Name:-Prof. Wayal R. M.

No. of lectures per week - 2

Month	Topic
July	Functions of several variables, graphs and level curves of function of two variables. Limit and Continuity in higher dimensions. Definition and examples. Second order partial derivative, the mixed derivative theorem. Partial derivatives of higher order.
August	Differentiability, the increment theorem for functions of two variables (without proof). Chain rules for composite functions. Directional derivatives, gradient vectors. Tangent planes, normal lines and differentials.
September	Extreme values, First derivative test and Second derivative test for local extreme values. Lagrange's multipliers method for finding extreme values of constraint function (One Constraint). Taylors Formula for two variables. . Double Integral over rectangles, Fubini's theorem for calculating double integrals (Without proof). Double integrals in polar form.

October	Triple integrals in rectangular coordinates. Triple integral in cylindrical and spherical coordinates. Substitution in multiple integrals, Application area and volumes.
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Class - S.Y.B.Sc.

Subject:- Laplace Transform &

Name:-Prof. Wayal R. M.

Month	Topic
July	Definition, Laplace Transform of some elementary functions. Some important properties of Laplace Transform. Laplace Transform of derivatives, Laplace Transform of Integrals.
August	Methods of finding Laplace Transform, Evaluation of Integrals. The Gamma function, Unit step function and Dirac delta function. Definition, Some inverse Laplace Transform. Some important properties of Inverse Laplace Transform.
September	Inverse Laplace Transform of derivative, Inverse Laplace Transform of integrals. Convolution Theorem, Evaluation of Integrals. Solution of Ordinary Differential Equations with constant coefficients
October	Definition and examples of Fourier Series.

Name:-Prof. Karle S.N.

Sr. No.	Class	Subject
1	F.Y.B.Sc.	Calculus and Differential Equation
2	F.Y.B.Cs.	Algebra and Calculus
3	S.Y.B.Cs.	Numerical Analysis (SEM-I)
4	S.Y.B.B.A.	Business Mathematics (SEM-I)
5	S.Y.B.Sc	Linear Algebra

Class - F.Y.B.Sc.

Subject:- Calculus and Di

Name:-Prof. Karle S.N.

Month	Topic
July	Algebraic properties of \mathbb{R} . Order properties of \mathbb{R} , intervals in \mathbb{R} , neighborhoods and deleted neighborhoods of a real number. Bounded subsets of \mathbb{R} . The Completeness Property of \mathbb{R} , denseness of \mathbb{Q} in \mathbb{R} . $\epsilon - \delta$ definition of limit of a function.
August	Basic properties of limits. Continuity of function at a point. Types of discontinuity. Continuous functions on intervals. Properties of continuous functions on closed and bounded interval. (i) Boundedness. (ii) Attains its bounds. (iii) Intermediate value theorem, Definition of derivative of a real valued function at a point, notion of differentiability, geometric interpretation of a derivative of a real valued function at a point.
September	Differentiability of a function over an interval. Differentiability of a function over an interval. Statement of rules of differentiability, chain rule of finding

	derivative of composite of differentiable functions (without proof), derivative of an inverse function..Mean Value Theorems: Rolle's Theorem, Lagrange's Mean Value Theorem,
October	Cauchy's Mean Value Theorem Indeterminate forms. L'Hospital's rule. Higher order derivatives, examples, Leibniz's Theorem and its applications , Taylor's and Maclaurin's Theorem with Lagrange's form of remainder (without proof), Examples with assuming convergence of series.
November	Partial Fraction and example on it. $\int (ax + b)^{1/n} dx$ where n is a positive integer, $\int \frac{Ax+B}{\sqrt{ax^2+bx+c}} dx$, $\int (Ax + B) \sqrt{ax^2 + bx + c} dx$,
December	Reduction formula $\int \frac{x^n}{\sqrt{ax^2+bx+c}} dx$, $\int \frac{dx}{(x^2 + a^2)^n}$ where n is a positive integer, Introduction to function of two, three variables, homogenous functions, Partial derivatives. Differential equations, General solution of Differential equations.
January	Methods of finding solution of Differential equations of first order and first degree, Variable separable form, Homogeneous Differential equations. Differential equations reducible to homogeneous form. Exact Differential equations. Differential

	equations reducible to exact Differential equations, Integrating factors , Linear Differential equations
February	. Bernoulli's Differential equations. Orthogonal trajectories Kirchhoff's law of electrical circuit (RC & LR Circuit) Equations solvable for p. Equations solvable for x, Equations solvable for y. Equation in Clairaut's form.

Class - F.Y.B.Cs.

Subject:- Algebra and Calculus

Name:-Prof. Karle S.N.

First Term

Month	Topics
July	Relations and functions 11 Lectures , Ordered pairs, Cartesian product of Sets. Relations, types of relations, equivalence relations. Partial orderings. Equivalence Class, properties of a partition of a set. Transitive closure and Warshall's Algorithm
August	Digraphs of relations, matrix representation and composition of relations. Definition of function as relation, types of functions (one-one, onto and bijective) Binary Operations and Groups 16 Lectures Definition of binary operation, examples, properties of binary operations. Definition of Monoid, semigroup, examples. Definition of group and examples, finite and infinite groups, permutation groups, subgroups, Cyclic groups.
September	Divisibility in Integers 16 Lectures Well ordering principle First and second Principle of Mathematical Induction,

	Examples Division Algorithm (without proof) Divisibility its properties, prime numbers. Definition G.C.D and L.C.M. Expressing G.C.D. of two integers as a linear combination of two integers. Euclidean Algorithm (Without proof). Relation between prime integers, Euclid's Lemma and its generalization.
October	Congruence relations and its properties, Residue Classes: Definition, Examples, addition and multiplication modulo n, composition tables Euler's and Fermat's Theorems. (Without proof). Examples
Second Term	
November	Continuity and Properties of continuous functions defined on $[a, b]$ (Without proof) and examples. Differentiability Theorem – Differentiability implies continuity but not conversely
December	Left hand derivative and Right hand derivative. Intermediate value theorem (without proof). Rolle's theorem (with proof and geometric interpretation) Lagrange's Mean Value Theorem (with proof and geometric interpretation)
January	Cauchy's Mean Value Theorem (with proof), Verification of L'Hospital's Rule (without proof) The nth derivatives of standard functions. Leibnitz's Theorem
February	Taylor's and Maclaurin's Theorems with Lagrange's and

	Cauchy's form of remainders (without proof). Taylor's and Maclaurin's Series. Matrices and System of Linear Equations. Lectures Revision: Elementary operations on matrices. Echelon form of matrix System of linear equations: Gauss Elimination Method,
March	Gauss –Jordan Elimination Method, L.U. Decomposition Method Rank of matrix, Row rank, Column rank

Class - S.Y.B.Cs.

Subject:- Applied Algebra

Name:-Prof. Karle S.N.

Month	Topic
July	Real vector space ,subspace, linear independence ,basis & dimension
August	row space, column space & null space,rank & nullity,,Eigen value & eigen vectors, Diagonalization , quadratic form
September	general linear transformation ,kernel & range,inverse linear transformation,,Matrix of general linear transformation,Cyclic group,normal subgroup,Product "ient of group,Coding binary information &errore detection, Decoding & error correction
October	public key cryptology

Class - S.Y.B.Sc.

Subject:- Linear Algebra

Name:-Prof. Karle S.N.

MONTH	TOPIC
November	Definition, examples of vector space. Definition, examples of vector space.
December	linear dependence, basis and dimension, vector subspace, Necessary and sufficient condition for subspace. Vector space as a direct sum of Subspaces. Inner product.
January	Norm as length of a vector, distance between two vectors, orthonormal basis, orthonormal projection, Gram Schmidt process of orthogonalization, null space, range space, rank, nullity.
February	Sylvester Inequality. Definition, examples of Linear Transformation. Properties of linear transformations, equality of linear transformations, kernel and rank of linear transformation, composite transformations, Inverse of a linear transformation
March	, Matrix of a linear transformation, change of basis, similar matrices

Class - S.Y.B.B. A.

Subject:- Business Mathem

Name:-Prof. Karle S.N.

No. of lectures per week -

Month	Topics
July	Ratio- Definition, Continued Ratio, Inverse Ratio, Proportion Continued Proportion, Direct, Proportion , Inverse Proportion Variation, Inverse Variation, Joint .Variation, Percentage- Meaning and Computations of Percentages , Simple Interest Compound interest (reducing balance & Flat Interest rate of interest), Equated Monthly Installments(EMI), Problems
August	Terms and Formulae, Trade discount, Cash discount, Problems involving cost price, Selling Price, Trade discount and Cash Discount. Introduction to Commission and brokerage, Problems on Commission and brokerage Statement and meaning of Two methods of finding initial basic feasible solution by North West corner Rule, Matrix Minimum method and Vogel's approximation method. Simple numerical problems.
September	Multivariable data, Definition of a Matrix, Types of Matrices Algebra of Matrices, Determinants, Ad joint of a Matrix, In

	of a Matrix via ad joint Matrix, Homogeneous System of Linear equations, Condition for Uniqueness for the homogeneous system, Solution of Non homogeneous System of Linear equations Condition for existence and uniqueness of solution Solution using inverse of the coefficient matrix .
October	Problems Meaning of LPP, Formulation of LPP, and solution by graphical methods.

Name:-Prof. Karle S.N.

Sr. No.	Class	Subject
1	F.Y.B.Sc.	Algebra and Geometry (SEM-II)
2	F.Y.B.Cs.	Discrete Mathematics
3	S.Y.B.Cs.	Numerical Analysis (SEM-I) Computational Geometry (SEM-II)
4	F.Y.B.Com.	Business Mathematics and Statistics

Class - F.Y.B.Cs.

Subject:- Discrete Mathem

Name:-Prof. Telang G.S.

Month	Topics
July	Revision : Propositional Logic, Predicates and Quantifiers Rules of Inference, Lattices and Boolean Algebra [10 Lect Poset, Hasse diagram. Lattices, Complemented lattice, Bou lattice and Distributive lattice. Boolean Functions : Introduc Boolean Function of degree n,
Augest	Boolean identities, Definition of Boolean lgebra.Representa of Boolean Functions : Minterm, Maxterm Disjunctive norm form, Conjunctive normal Form. Counting Principles 10 Lectures Cardinality of Set : Cardinality of a finite set. Basics of Counting : The Product Rule, The Sum Rule, The Inclusion-Exclusion Principle. The Pigeonhole Principle: Statement, The Generalized Pigeonhole Principle, Its Applications.
September	Generalized Permutations and Combinations : Permutation Combination with Repetitions, Permutations with

	Indistinguishable Objects, Distributing objects into box. Recurrence Relations 9 Lectures Recurrence Relations : Introduction, Formation. Linear Recurrence Relations with constant coefficients.
October	Homogeneous Solutions. Particular Solutions. Total Solution
	Second Term
November	Definition, Elementary terminologies and results, Graphs as Models. Definition, Elementary terminologies and results, Graphs as Models. Special types of graphs
December	Isomorphism Adjacency and Incidence Matrix of a Graph Subgraphs, induced subgraphs, Vertex deletion, Edge deletion Complement of a graph and self-complementary graphs. Union, Intersection and Product of graphs. Fusion of vertices Connected Graphs. 09 Lectures Walk, Trail, Path, Cycle : Definitions and elementary properties , Connected Graphs :
January	definition and properties. Distance between two vertices, eccentricity, center, radius and diameter of a graph. Isthmus Cutvertex : Definition and properties. Cutset, edge-connectivity vertex connectivity. Weighted Graph and Dijkstra's Algorithm Eulerian and Hamiltonian Graphs 05 Lectures Seven Bridges Problem, Eulerian Graph : Definition and Examples, Necessary

	and Sufficient condition. Fleury's Algorithm.
February	Hamiltonian Graphs : Definition and Examples, Necessary Condition. Introduction of Chinese Postman Problem and Travelling Salesman Problem. Definition, Properties of tree. Center of a tree. Binary Tree : Definition and properties. Tree Traversal : Ordered rooted Tree, Preorder traversal, inorder traversal and postorder traversal, Prefix Notation. Spanning Tree : Definition, Properties, Shortest Spanning Tree. Kruskal's Algorithm.
March	Definition, Examples Elementary Terminologies and properties. Special Types of Digraphs. Connectedness of digraphs. Network and Flows : definition and examples.

Class - S.Y.B.Cs.

Subject:- Numerical Analysis

Name:-Prof. Telang G.S.

Month	Topics
July	Accuracy of Numbers , Errors , Algebraic and Transcendental Equation , False Position Method , Newton-Raphson Method
August	Differences , Forward Differences , Backward Differences , Central Differences , Other Differences , Properties of Operators , Relation between Operators , Fundamental Theorem on Differences of polynomial, Estimation of Error by Difference Table , Technique to determine the Missing Term ,Interpolation with Equal Interval , Newton's Gregory Formula for Forward Interpolation ,Newton's Gregory Formula for Backward Interpolation, Central Difference Formulae
September	Gauss Forward Difference Formula , Gauss Backward Difference Formula ,Bessel's Interpolation Formula ,Lagrange's Interpolation Formula , Error in Lagrange's Interpolation Formula , Divided Difference , Newton's Divided Difference Formula ,Hermite's Interpolation Formula ,Numerical

	Integration ,General Quadrature Formula , Trapezoidal Rule Simpson's one-Third Rule , Simpson's Three-Eight Rule Euler-Maclaurin's Formula
October	Euler's Method , Euler's Modified Method , Runge-Kutta Method , Milne's Predictor-Corrector Method

Class - S.Y.B.Cs.

Subject:- Computational C

Name:-Prof. Telang G.S.

No. of lectures per week -

Month	Topics
November	Two dimensional transformations ,Introduction , Representation of points Transformations and matrices , Transformation of points , Transformation of straight lines
December	Midpoint transformation , Transformation of parallel lines Transformation of intersecting lines , Transformation: rotations, reflections, scaling, shearing , Combined transformations. Transformation of a unit square, Solid body transformations Transformation and homogeneous coordinates. Translation Rotation about an arbitrary point
January	Reflection through an arbitrary line , Projection – a geometric interpretation of homogeneous coordinates, Overall Scaling Point at infinity, Three dimensional transformations , Introduction, Three dimensional – Scaling, shearing, rotation, reflection, translation. Multiple transformations , Rotation about an axis parallel to coordinate axes, an arbitrary axis in space Reflection through – coordinate planes, planes parallel to coordinate planes, arbitrary planes ,

February	Affine and perspective transformations, Orthographic projections , Axonometric projections , Oblique projections , Single point perspective transformations Vanishing points , Plane Curves ,Introduction. Curve representation ,Non – parametric curves , Parametric curves. Parametric representation of an ellipse and generation of ellipse. Parametric representation of a parabola and generation of parabolic , segment ,
March	Parametric representation of a hyperbola and generation of hyperbolic, segment , Bezier Curves – Introduction, definition, properties, curve fitting (up to $n = 3$), equation of the curve in matrix form (up to $n = 3$)

Name:-Prof. Kawade S.S.

Sr. No.	Class	Subject
1	S.Y.B.Cs..	Operational Research (SEM-II)
2	S.Y.B.Sc.	Numerical Analysis (SEM-II)
3	F.Y.B.Com.	Business Mathematics and Statistics

Class - S.Y.B.Cs.

Subject:- Operational Res

Name:-Prof. Kawade S.S.

Month	Topic
November	Graphical method , Two-Variable LP Model
December	Graphical LP Solution, Linear Programming Applications
January	LP Model in Equation Form , Transition from Graphical to Algebraic Solution , The Simplex Method , Artificial Start Solution , Special Cases in Simplex Method
February	Dual problem , Definition of the dual problem , Primal d relationships , Examples, Transportation problem , Definition of the Transportation problem
March	The Transportation Algorithm , The Assignment Model Optimal solution of two person zero sum games , Solution of mixed strategy games

Class - S.Y.B.Sc.

Subject:- Numerical methods & its

Name:-Prof. Kawade S.S.

Month	Topic
November	Errors and Their Computations. Rounding off numbers to significant digits, to n decimal places. Absolute, relative and percentage errors. A general error formula. Bisection method
December	The method of False position. The iteration method, Aitken's Δ^2 process Newton- Raphson Method. Finite Difference Operators and their relations.Detection of Errors using difference table.Differences of a polynomial, Newton's Interpolation Formulae (Forward and Backward)
January	Lagrange's Interpolation Formula, Divided differences and Newton's General Interpolation formula. 1 Fitting a Straight Line, Nonlinear curve fitting: Power function $y = ax^c$, polynomials of degree 2 and 3,Exponential function $y = ce^{kx}$
February	Numerical Differentiation.Numerical Integration,General quadrature formula.Trapezoidal rule. Simpsons's $\frac{1}{3}$ rd rule. Simpsons's $(\frac{3}{8})^{\text{th}}$ rule.Taylor Series method
March	Euler's method.Modified Euler's methods.Runge - Kutta

	Methods 2nd and 4th order.
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Class - F.Y.B.Com.

Subject:- Algebra and

Name:-Prof. Telang G.S. / Prof. Kawade S.S.

First Term

Month	Topics
July	Natural no & integers, H.C.F & M.C.F,, fraction, Laws of indices , ratio & percentage, proportion
August	simple interest , compound interest , EMI , examples Concept of shares ,face value, market value , net asset value Equity shares and preference shares , Dividend , Bonus ha Examples
September	definition & concept of statistics, scope of statistics, conce population &sample , sampling method , variables, classification of data , frequency distribution
October	Graph , mean ,median & mode , examples
Second Term	

November	cost price, market, selling price , trade
December	cash discount , commission & brokerage, examples Defin formulation of linear programming problem, graphical meth example
January	concept of dispersion ,measures of dispersion ,measures of relative dispersion ,examples
February	Data, scatter diagram ,Karl pearson's coefficient correlation
March	rank correlation, regression ,examples

हुतात्मा राजगुरु महाविद्यालय, राजगुरुनगर

ता. खेड, जि.पुणे

मराठी विभाग : एकूण कार्यभार

शैक्षणिक वर्ष २०१७ – २०१८

वर्गाचे नाव	विषय	तुकडी		कार्यभार		कार्यभार
		अनुदानित	विनाअनुदानित	अनुदानित	विनाअनुदानित	
प्रथम वर्ष कला	मराठी G १	२	२	०८	०८	१६
द्वितीय वर्ष कला	मराठी G २	१	.....	०४	.....	०४
द्वितीय वर्ष कला	मराठी S १	१	.....	०४	.....	०४
द्वितीय वर्ष कला	मराठी S २	१	.....	०४	.....	०४
तृतीय वर्ष कला	मराठी G ३	१	.....	०४	.....	०४
तृतीय वर्ष कला	मराठी S ३	१	.....	०४	.....	०४
तृतीय वर्ष कला	मराठी S ४	१	.....	०४	.....	०४
प्रथम वर्ष वाणिज्य	मराठी	१	६	०४	२४	२८
द्वितीय वर्ष विज्ञान	मराठी	१	.....	०४	.....	०४
		एकूण		४०	३२	७२

कार्यभार वाटप (पदवीसाठी) ४०+२८=६८	अ.क्र.	प्राध्यापकाचे नाव	एकूण तासिका
	१	डॉ. संजय शिंदे	२०
	२	डॉ.बाळासाहेब अनुसे	२०
	३	प्रा. वर्षा कांबळे	२०
	४	प्रा.एस.व्ही.धानापुणे	१२

डॉ.संजय शिंदे
मराठी विभाग प्रमुख

हुतात्मा राजगुरू महाविद्यालय, राजगुरूनगर

ता.खेड जि. पुणे

शैक्षणिक वर्ष — २०१७ — २०१८

Personal Workload Distribution

अ.क्र.	वर्ग	विषय	तुकडी	प्राध्यापकाचे नाव	तासिका
१	प्रथम वर्ष कला	आधुनिक मराठी साहित्य आणि उपयोजित मराठी	ए.	डॉ.एस.डी.शिंदे	०४
			बी	डॉ.बी.डी.अनुसे	०४
			सी.	प्रा.व्ही.व्ही.कांबळे	०४
२	प्रथम वर्ष वाणिज्य	यशोगाथा व व्यावहारिक आणि उपयोजित मराठी	ए.	डॉ.एस.डी.शिंदे	०४
			बी	प्रा.व्ही.व्ही.कांबळे	०४
			सी.	प्रा.व्ही.व्ही.कांबळे	०४
			डी.	प्रा.व्ही.व्ही.कांबळे	०४
			इ.	प्रा.व्ही.व्ही.कांबळे	०४
			एफ.	प्रा.एस.व्ही.धानापुणे	०४
			जी.	प्रा.एस.व्ही.धानापुणे	०४
३	द्वितीय वर्ष कला (G.2)	आधुनिक मराठी साहित्य आणि उपयोजित मराठी	ए.	डॉ.एस.डी.शिंदे	०४
४	द्वितीय वर्ष कला (S.1)	मराठी साहित्यातील विविध साहित्यप्रकार	ए.	डॉ.बी.डी.अनुसे	०४
५	द्वितीय वर्ष कला (S.2)	अर्वाचीन मराठी वाङ्मयाचा इतिहास	ए.	डॉ.एस.डी.शिंदे	०४
६	द्वितीय वर्ष विज्ञान	मराठी विज्ञान साहित्य आणि व्यावहारिक व उपयोजित मराठी	ए.	डॉ.बी.डी.अनुसे	०४
७	तृतीय वर्ष कला (G.3)	आधुनिक मराठी साहित्य आणि उपयोजित मराठी	ए.	डॉ.बी.डी.अनुसे	०४
८	तृतीय वर्ष कला (S.3)	साहित्यविचार	ए.	डॉ.एस.डी.शिंदे	०४
९	तृतीय वर्ष कला (S.4)	भाषाविज्ञान : वर्णनात्मक आणि ऐतिहासिक	ए.	डॉ.बी.डी.अनुसे	०४

KTSP MANDALS
HUTATMA RAJGUTU MAHAVIDYALAY
RAJGURUNAGAR TAL- KHED, DIST- PUNE

Time Table
MARATHI DEPARTMENT
Academic Year 2017-18

Dr.S.D.Shinde (Total Workload 20)

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7.30 To 8.20	FYBA-A			FYBA-A		
8.20 To 9.10	SYBA S2	FYBCOM-A	FYBCOM-A		SYBA S2	SYBA S2
9.20 To 10.10	FYBCOM-A	SYBA S2	SYBA S3	SYBA S3	SYBA S3	SYBA S3
10.10 To 11		SYBA G2	SYBA G2	FYBCOM-A		FYBA-A
11 To 11.50	SYBA G2			SYBA G2	FYBA-A	

Dr.B.D.Anuse (Total Workload 20)

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7.30 To 8.20	SYBSC	SYBSC	SYBSC	SYBSC	FYBA - B	TYBA G3
8.20 To 9.10		SYBA- S1	SYBA- S1	SYBA- S1		
9.20 To 10.10	SYBA- S1		FYBA - B	FYBA - B		FYBA - B
10.10 To 11	TYBA S4	TYBA S4	TYBA S4	TYBA S4		
11 To 11.50		TYBA G3			TYBA G3 BDA	TYBA G3

Prof.V.V.Kambale (Total Workload 20)

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7.30 To 8.20	FYBCOM – E	FYBCOM – E		FYBCOM-D		FYBCOM – C
8.20 To 9.10		FYBCOM – C	FYBCOM – E			
9.20 To 10.10	FYBCOM – C	FYBA – C	FYBCOM – C	FYBA – C		FYBCOM – E
10.10 To 11	FYBA – C	FYBCOM – B				FYBA – C
11 To 11.50	FYBCOM-D	FYBCOM-D	FYBCOM – B YBR	FYBCOM – B YBR	FYBCOM-D	FYBCOM – B

Prof. S.V.Dhanapune (Total Workload 12)

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7.30 To 8.20	FYBCOM – G	FYBCOM –G		FYBA – D		
8.20 To 9.10		FYBA – D				FYBCOM – F
9.20 To 10.10			FYBCOM – G		FYBCOM – F	FYBCOM – G
10.10 To 11			FYBCOM – F	FYBCOM – F		FYBA – D
11 To 11.50	FYBA – D					

Dr. S. D. Shinde
Head, Department of Marathi

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya,

Rajgurunagar Tal.-Khed Dist.-Pune-410505

Department of Computer Science

Syllabus Completion Report

Academic Year -2017-18(Sem-I)

Sr.No.	Class	Subject Name	Teacher Name	Page No.
1	F.Y.B.Sc.(CS)	Problem solving using 'C'	Prof.P.Y.Jadhav	2
2	F.Y.B.Sc.(CS)	File Organization & Database Management System	Prof. A.S.Tanpure	4
3	F.Y.B.Sc.(CS)	Principles of analog Electronics	Prof.D.D.Kharmale	6
4	F.Y.B.Sc.(CS)	Principles of digital Electronics	Prof. A.P.Kulkarni	8
5	S.Y.B.Sc.(CS)	Data Structures Using 'C'	Prof.M.S.Salunke	10
6	S.Y.B.Sc.(CS)	Relational Database Management System	Prof. Y.D.Shinde	13
7	S.Y.B.Sc.(CS)	Digital System Hardware	Prof. A.P.Kulkarni	16
8	S.Y.B.Sc.(CS)	Analog systems	Prof. D.D.Kharmale	18
9	T.Y.B.Sc.(CS)	System Programming	Prof. Y.D.Shinde	20
10	T.Y.B.Sc.(CS)	Theoretical Computer Science	Prof.P.Y.Jadhav	24
11	T.Y.B.Sc.(CS)	Computer Networks-I	Prof. P.Y.Jadhav	27
12	T.Y.B.Sc.(CS)	Internet Programming-I	Prof. M.S.Salunke	31
13	T.Y.B.Sc.(CS)	Programming in Java-I	Prof. A.S.Tanpure	33
14	T.Y.B.Sc.(CS)	Object Oriented Software Engg.	Prof.M.S.Salunke	36

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018

SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Problem Solving Using 'C'

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	Chapter 1 : Problem Solving using Computers 1.1 Problem-Solving 1.2 Writing Simple Algorithms 1.3 Algorithms 1.4 Flowcharts	8	9
		Chapter 2 :Programming Languages as Tools 2.1 Machine language 2.2 Assembly language 2.3 High level languages 2.4 Compilers and Interpreters	3	4
		Chapter 3: Introduction to C 3.1 History 3.2 Structure of a C program 3.3 Functions as building blocks	1	2
2	AUGUST	3.4 Application Areas 3.5 C Program development life cycle 3.6 Sample programs	1	1
		Chapter 4 : C Tokens 4.1 Keywords 4.2 Identifiers 4.3 Variables 4.4 Constants – character, integer, float, string, escape sequences 4.5 Data types – built-in and user defined 4.6 Operators and Expressions Operator types (arithmetic, relational, logical, assignment, bitwise, conditional , other operators) , precedence and	11	12

		associativity rules.		
3	SEPTEMBER	4.7 Simple programs using printf and scanf Chapter 5 : Input and Output 5.1 Character input and output 5.2 String input and output 5.3 Formatted input and output Chapter 6 :Control Structures 6.1 Decision making structures If, if-else 6.2 Loop Control structures While, do-while, for 6.3 Nested structures	1 3 8	1 4 9
4	OCTOBER	6.4 break and continue Chapter 7 Functions in C 7.1 What is a function 7.2 Advantages of Functions 7.3 Standard library functions 7.4 User defined functions:Declaration, definition, function call, parameter passing (by value), return keyword, 7.5 Scope of variables, storage classes 7.6 Recursion	2 10	2 11

DEPARTMENT OF COMPUTER SCIENCE

SYLLABUS COMPLETION REPORT

ACADEMIC YEAR-2017-2018

SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME -File Organization and Fundamental of Databases

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	Chapter 1 File Organization 1.1 Introduction 1.2 Physical / logical files 1.3 Types of file organization (heap,sorted, indexed,hashed) 1.4 Choosing a file organization	8	9
		Chapter 2 Introduction of DBMS 2.1 Overview 2.2 File system Vs DBMS 2.3 Describing & storing data (Data models 2.4 Levels of abstraction 2.5 Data independence	3	4
		2.6 Structure of DBMS 2.7 Users of DBMS 2.8 Advantages of DBMS	1	1
2	AUGUST	Chapter 3 Conceptual Design (E-R model) 3.1 Overview of DB design 3.2 ER data model (entities , attributes, entity sets, relations, relationship sets)	1	1
		3.3 Additional constraints (Key constraints, Mapping constraints, Strong & Weak entities, aggregation / generalization) 3.4 Conceptual design using ER modelling (entities VS attributes, Entity Vs relationship, binary Vs ternary,	11	12

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME -Principles of Analog Electronics

SUBJECT TEACHER- Prof.D.D.Kharmale

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	Unit 1: Passive Components Study of basic circuit elements and passive components (with special reference to working principle,circuit symbols, types, specifications and applications): Resistor, Capacitor, Inductor, Transformer,Cables, Connectors, Switches, Fuses, Relays, Batteries.	12	13
2	AUGUST	Unit 2: Basic Electrical Circuits and Circuit Theorems Concept of Ideal Voltage and Current source, internal resistance, dc sources(voltage/current) and sinusoidal ac source(amplitude, wavelength, period, frequency, phase angle), Network terminology,Ohms law, series and parallel circuits of resistors, capacitors and inductors, voltage and current dividers, Kirchhoff's Laws (KCL, KVL),	12	13

		Superposition theorem,		
3	SEPTEMBER	<p>concept of black box, Thevenin's theorem, Norton's theorem, Maximum power transfer theorem (numerical problems with maximum two meshes), Charging-discharging of capacitor, AC applied to R, C and L, concept of impedance LCR series resonant circuit, concept of phase difference, RC low pass and high pass filter</p> <p>Unit 3: Semiconductor Diodes and Circuits</p> <p>Study of semiconductor devices with reference to symbol, working principle, I-V characteristics, parameters, specifications: diode, zener diode, light emitting diode, photo diode, optocoupler, varactordiode, solar cell, clipper and clamper circuits Rectifiers (half and full wave), rectifier with capacitor-filter, Zener regulator, Block diagram of power supply .</p>	<p>4</p> <p>8</p>	<p>4</p> <p>9</p>
4	OCTOBER	<p>Unit 4: Bipolar Junction Transistor and Circuits</p> <p>Bipolar Junction Transistor (BJT) symbol, types, construction, working principle,</p>	12	13

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME - Principles of Digital Electronics

SUBJECT TEACHER- Prof. A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	Unit 1: Number Systems and Logic Gates Introduction to decimal, Binary and hexadecimal number systems and their inter-conversions, Signed and fractional binary number representations, BCD, Excess-3 and Graycodes, Alphanumeric representation in ASCII codes. Positive and Negative Logic, Basic Logic gates (NOT, OR, AND) & derived gates (NAND, NOR, EX-OR) Symbol and truth table, Applications of Ex-OR gates as parity checker and generator.	12	13
2	AUGUST	Unit 2: Boolean Algebra and Karnaugh maps Boolean algebra rules and Boolean laws: Commutative, Associative, Distributive, AND, OR and Inversion laws, DeMorgen's theorem, Universal gates. Min terms, Max terms , Boolean expression in SOP and POSform, conversion of SOP/POS expression to its standard SOP/POSform., Simplifications of Logic equations using Boolean algebra rules and Karnaugh map (up to 3 variables).	12	13

3	SEPTEMBER	Unit 3: Arithmetic Circuits Rules of binary addition and subtraction, subtraction using 1's and 2's complements, halfadder, full adder, Half subtractor, Full subtractor, Four bit parallel adder, Universal adder / subtractor, Digital comparator, Introduction to ALU.	12	13
4	OCTOBER	Unit 4: Combinational Circuits Multiplexer (2:1, 4:1),	3	4

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME – Data Structures using ‘C’

SUBJECT TEACHER-Prof. M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT 1. Introduction to data structures 1.1 Concept 1.2 Data type, Data object, ADT 1.2.1 Data Type 1.2.2 Data Object 1.2.3 ADT -Definition, Operation, examples on rational number 1.3 Need of Data Structure 1.4 Types of Data Structure	3	4
		UNIT 2. Algorithm analysis 2.1 Algorithm – definition, characteristics 2.2 Space complexity, time complexity 2.3 Asymptotic notation (Big O, Omega Ω)	2	2
		UNIT 3. Linear data structures 3.1 Introduction to Arrays - array representation 3.2 Sorting algorithms with efficiency - Bubble sort, Insertion sort, Merge sort, Quick Sort 3.3 Searching techniques –Linear Search, Binary search	6	7
		UNIT 4. Linked List 4.1 Introduction to Linked List 4.2 Implementation of Linked List – Static & Dynamic representation, 4.3 Types of Linked List	4	5

2	AUGUST	4.4 Operations on Linked List - create, display, insert, delete, reverse, search, sort, concatenate & merge	4	4
		4.5 Applications of Linked List – polynomial manipulation		
		4.6 Generalized linked list – Concept and Representation		
		UNIT 5. Stacks		
		5.1 Introduction	6	7
		5.2 Representation- Static & Dynamic		
		5.3 Operations		
		5.4 Application - infix to postfix, infix to prefix, postfix evaluation,		
		5.5 Simulating recursion using stack		
		UNIT 6. Queues	4	4
		6.1 Introduction		
		6.2 Representation - Static & Dynamic		
		6.3 Operations		
		6.4 Circular queue, priority queue (with implementation)		
		6.5 Concept of doubly ended queue		
		UNIT 7. Trees	2	3
		7.1 Concept & Terminologies		
		7.2 Binary tree, binary search tree		
		7.3 Representation – Static and Dynamic		
3	SEPTEMBER	7.4 Operations on BST – create, Insert, delete, traversals (preorder, inorder, postorder), counting leaf, non-leaf & total nodes , non recursive inorder traversal	10	11
		7.5 Application - Heap sort		
		7.6 Height balanced tree- AVL trees- Rotations, AVL tree examples.		
		UNIT 8 Graph	6	7
		8.1 Concept & terminologies		
		8.2 Graph Representation – Adjacency matrix, adjacency list, inverse Adjacency list, adjacency multilist, orthogonal list		

4	OCTOBER	8.3 Traversals – BFS and DFS 8.4 Applications – AOV network – topological sort, AOE network – critical path	1	1
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Relational Database Management System

SUBJECT TEACHER- Prof. Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	1. Relational Database Design 1.1 Preliminaries Functional Dependencies Basic concepts : Closure of a set of functional dependencies, Closure of attribute set, Canonical cover, Decomposition. 1.2 PL/PgSQL: Datatypes, Language structure 1.3 Controlling the program flow, conditional statements, loops 1.4 Views 1.5 Stored Functions, Stored Procedures 1.6 Handling errors and exceptions 1.7 Cursors 1.8 Triggers	14	15
		2 Transaction Concepts and concurrency control 2.1 Describe a transaction, properties of transaction, state of the transaction. 2.2 Executing transactions concurrently associated problem in concurrent execution.	2	2

		5. Client-Server Technology 5.1 Describe client-server computing. 5.2 Evolution of Client - Server information systems. 5.3 Client – Server Architecture benefits. 5.4 Client Server Architecture - Components, Principles, Client Components - Communication middleware components - Database middleware components - Client Server Databases	4	5
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Digital System Hardware

SUBJECT TEACHER- Prof. A.P.Kulkarni

SR · N O	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1: Digital circuit design Introduction to digital circuit design, Circuit design using logic gates: Binary to gray converter, Gray to Binary converter, Decimal to BCD encoder Circuit design using state table/K-map: Design of Full adder, full subtractor, BCD to seven segment decoder, Concept of excitation table, Design of 3 bit synchronous up counter , 3 bit random sequence generator .	12	13
		UNIT- 2: Memory Memory Architecture, Memory Hierarchy, Introduction to USB storage device, Memory parameters (Access time, speed, capacity, cost), Vertical & horizontal Memory expansion (increasing the capacity, increasing word size),	4	5
2	AUGUST	Associative Memory, Cache memory, cache mapping techniques, virtual memory, virtual memory mapping (paging and segmentation).	8	9
		UNIT- 3: Computer Organization Concept of Address Bus, Data Bus, Control Bus. Register based CPU organization, stack	8	9

		organization, I/O organization: need of interface, block diagram of general I/O interface. Working concepts like polling,		
3	SEPTEMBER	interrupt initiated data transfer. Concept of DMA , DMA transfer, DMA Controller Serial communication: Synchronous, asynchronous and their data transmission formats, RS–232, General block diagram of UART. UNIT- 4: Microprocessor Evolution of Microprocessor (8086 to Pentium 4), Features like address, data, bus size, speed, cache capacity, number of parallel instructions executed. Concept of RISC & CISC, Von-Neumann & Harvard Architecture, Concept of pipeline. Architecture of basic microprocessor: 8086 & Pentium (Basic Version), Introduction to multicore processors, its development and impact on Hardware, Software.	6 10	7 11

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME –Analog Systems

SUBJECT TEACHER- Prof.D.D.Kharmale

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT -1: Analog Electronic System Introduction of analog electronic systems. Definition of sensors and transducers. Classification of sensors: Active and passive sensors. Specifications of sensors: Accuracy, range, linearity, sensitivity, resolution, reproducibility. Temperature sensors (LM-35 and AD590), pH sensor, piezoelectric humidity sensor, optical sensor (LDR), displacement sensor (LVDT), Passive Infrared sensor (PIR), tilt sensor, touch sensor, ultrasonic sensor	14	15
		UNIT- 2: Signal Conditioning Introduction to signal conditioning, Signal conditioning of passive sensors using bridge circuit: Wheatstone 's bridge, Level Shifter, Amplifier,	2	2
2	AUGUST	Three OP-amp instrumentation amplifier, Filters; active and passive filters, Concept of Order of filters. Working principle of Single order Op-Amp based Low Pass Filter, High Pass Filter, Band Pass Filter, Notch Filter, Band reject filter; Working of Voltage to frequency Converter using OpAmp.	12	13
		UNIT- 3: Data Converters Digital to Analog Converter (DAC): Resistive divider, R-2R ladder, Parameters: Linearity, resolution,	4	5

		accuracy, Analog to Digital Converter		
3	SEPTEMBER	<p>(ADC): Types of ADC- Flash, Successive approximation, dual slope. Parameters of ADC: Linearity, resolution, conversion time, accuracy. Applications of DAC and ADC.</p> <p>UNIT – 4: Case studies Temperature monitoring system using LM35, Intruder detector system using PIR sensor, Water Level Indicator system using float switch, Electrocardiography (ECG).</p>	<p>8</p> <p>8</p>	<p>9</p> <p>9</p>

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –System Programming

SUBJECT TEACHER- Prof.Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1: Introduction 1.1. Types of program – System program and Application program. 1.2. Difference between system programming and application programming. 1.3. Elements of Programming environment - Editor, Preprocessor, Assembler, Compiler, Interpreter, Linker and Loader, Debugger, Device drivers, Operating System. 1.4. Simulation of simple computer smac0 (hypothetical computer) - Memory, Registers, Condition Codes, Instruction format, Instruction Set, smac0 programs.	4	5
		UNIT- 2: Editors 2.1 Definition, need/purpose of editor. 2.2 Types of editor- Examples ed, sed, VIM & emacs 2.3 Structure of editor	2	2
		UNIT - 3 : Assembler 3.1 Definition. 3.2 Features of assembly language, advantages . 3.3 Statement format, types of statements – Imperative, Declarative, Assembler Directive. 3.4 Constants and Literals.	10	11

		<p>Traditional computing, Client server computing, Peer to peer Computing</p> <p>UNIT-9: System Structure</p> <p>9.1 Operating System Services</p> <p>9.2 User Operating-System Interface – Command interpreter, GUI</p> <p>9.3 System Calls</p> <p>9.4 Types of System Calls – Process control, File management, Device management, Information maintenance, Communication, Protection</p>	06	07
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Theoretical Computer Science

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1: Introduction 1.1 Symbol, Alphabet, String, Prefix & Suffix of Strings, Formal Language, Operations on Languages. 1.2 Regular Expressions (RE) : Definition & Example 1.3 Regular Expressions Identities.	03	04
		UNIT- 2: Finite Automata 2.1 Deterministic finite Automaton – Definition, DFA as language recognizer, DFA as a pattern recognizer. 2.2 Nondeterministic finite automaton – Definition and Examples. 2.3 NFA TO DFA : Method (From Book 4) 2.4 NFA with ϵ - transitions Definition and Examples. 2.5 NFA with ϵ -Transitions to DFA & Examples 2.6 Finite automaton with output – Mealy and Moore machine, Definition and Examples. 2.7 Minimization of DFA, Algorithm & Problem using Table Method.	12	13

2	AUGUST	<p>UNIT - 3 Regular Languages 3.1 Regular language-Definition and Examples. 3.2 Conversion of RE To FA-Examples. 3.3 Pumping lemma for regular languages and applications. 3.4 Closure properties of regular Languages (Union, Concatenation, Complement, Intersection and Kleene closure)</p> <p>UNIT- 4 : Context Free Grammar and Languages 4.1 Grammar - Definition and Examples. 4.2 Derivation-Reduction - Definition and Examples. 4.3 Chomsky Hierarchy. 4.4 CFG : Definition & Examples. LMD, RMD, ,Parse Tree 4.5 Ambiguous Grammar : Concept & Examples. 4.6 Simplification of CFG : 4.6.1 Removing Useless Symbols, 4.6.2 Removing unit productions 4.6.3 Removing ϵ productions & Nullable symbols 4.7 Normal Forms : 4.7.1 Chomsky Normal Form (CNF) Method & Problem 4.7.2 Greibach Normal form (GNF) Method & Problem 4.8 Regular Grammar : Definition. 4.8.1 Left linear and Right Linear Grammar-Definition and Example. 4.8.2 Equivalence of FA & Regular Grammar 4.8.2.1 Construction of regular grammar equivalent to a given DFA 4.8.2.2 Construction of a FA from the given right linear grammar 4.9 Closure Properties of CFL's(Union, concatenation and Kleen closure) Method and examples</p>	<p>05</p> <p>12</p>	<p>06</p> <p>13</p>
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3	SEPTEMBER	UNIT- 5: Push Down Automaton 5.1 Definition of PDA and examples 5.2 Construction of PDA using empty stack and final State method : Examples using stack method 5.3 Definition DPDA & NPDA, their correlation and Examples of NPDA 5.4 CFG (in GNF) to PDA : Method and examples	06	07
		UNIT- 6: Turing Machine 6.1 The Turing Machine Model and Definition of TM 6.2 Design of Turing Machines 6.3 Problems on language recognizers. 6.4 Language accepted by TM 6.5 Types of Turing Machines(Multitrack TM,Two way TM, Multitape TM,Non-deterministic TM) 6.6 Introduction to LBA (Basic Model) &CSG.(Without Problems) 6.7 Computing TM, Enumerating TM, Universal TM 6.8 Recursive Languages 6.5.1. Recursive and Recursively enumerable Languages. 6.5.2. Difference between recursive and recursively enumerable language. 6.9 Turing Machine Limitations 6.10 Decision Problem, Undecidable Problem, Halting Problem of TM	10	11

Class: :TYBSc.(Computer Science)

SUBJECT NAME –Computer Networks-I

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1. Introduction to Computer Networks 1.1 Computer Networks- Goals and applications – Business Application , Home Application, Mobile User, Social Issues 1.2 Network Hardware - Broadcast and point-to-point 1.3 topologies – star, bus, mesh, ring etc. 1.4 Network Types-LAN, MAN, WAN, Wireless Networks, Home Networks, Internetwork 1.5 Data Communication-Definition, components, data representation, Data Flow 1.6 Protocols & Standards De facto and De jure standard, 1.7 Network Software - Protocol Hierarchies -layers, protocols, peers, interfaces Network architecture, protocol stack, Design issues of the layers – addressing, error control, flow control, multiplexing and demultiplexing, routing Connection-oriented and connectionless service, Service Primitives – listen, connect, receive, send, disconnect and Berkley Socket ,the relationships of services to protocols.	08	09
		UNIT- 2: Network Models	05	06

		<p>2.1 OSI Reference Model - Functionality of each layer</p> <p>2.2 TCP/IP Reference Model, Comparison of OSI and TCP/IP model</p> <p>2.3 TCP/IP Protocol Suite</p> <p>2.4 Addressing - Physical, Logical and Port addresses</p> <p>UNIT - 3 Transmission Media</p> <p>3.1 Twisted pair cable – UTP Vs STP, categories connectors & applications , Coaxial cable – standards, connectors & applications Fiber Optic cable – propagation modes, connectors & applications(No diagrams will be asked in examination)</p> <p>3.2 Unguided Media – Wireless- Radio Waves,- Microwaves, Infrared</p>	03	06
3	AUGUST	<p>UNIT - 3 Transmission Media</p> <p>3.3 Light wave transmission 3.4 Types of cabling and Networking Tool - CAT5 and CAT6 Cable Color Code, Crossover Cabling and Straight Through Cable, Crimping and Line testing tool</p> <p>UNIT - 4 The Physical Layer</p> <p>4.1 Analog and Digital data, Analog and Digital signals, Periodic & Non-periodic signals Digital Signals- Bit rate, bit length, baseband Transmission (no cases)</p> <p>4.2 Transmission Impairments – attenuation, distortion and noise, Data Rate Limits – Noiseless channel: Nyquist's bit rate, noisy channel : Shannon's law (Enough problems should be covered on every topic.)</p> <p>4.3 Performance of the Network Bandwidth, Throughput, Latency(Delay), Bandwidth –Delay Product, Jitter</p> <p>4.4 Line Coding Characteristics, Line Coding Schemes – Unipolar - NRZ, Polar-NRZ-I, NRZ-L, RZ, Manchester and Differential Manchester (Enough</p>	<p>02</p> <p>14</p>	<p>02</p> <p>15</p>

4	SEPTEMBER	<p>problems should be covered on every topic.)</p> <p>4.5 Transmission Modes, Parallel Transmission and Serial Transmission – Asynchronous and Synchronous and Isochronous</p> <p>4.6 Trunks & Multiplexing FDM and TDM</p> <p>4.7 Switching - Circuit Switching, Message Switching and Packet Switching, comparison of circuit & packet switching</p> <p>4.8 Physical Layer Devices Repeaters, Hubs- active hub Passive hub</p> <p>UNIT- 5: The Data Link Layer</p> <p>5.1 Design Issues – Services provided to the Network Layer , Framing – Concept, Methods - Character Count, Flag bytes with Byte Stuffing, Starting & ending Flags with Bit Stuffing and Physical Layer Coding Violations, Error Control, Flow Control</p> <p>5.2 Error detection code CRC (Enough problems should be covered on every topic.)</p> <p>5.3 Data Link Layer Protocols – Noiseless channel -A Simplex, Stop-And-Wait protocol, noisy channel –stop & wait, ARR, Pipelining, Go –back –N ARR & ARQ, selective repeat ARR(No examples & no algorithms)</p> <p>5.4 Sliding Window Protocols Piggybacking-Need, Advantages/Disadvantages, 1-bit sliding window protocols,</p> <p>5.5 Data Link Layer Protocols-HDLC – frame format, all frame types PPP – Use, Frame Format, Use of PPP in the Internet</p> <p>5.6 Data Link Layer Devices - Bridges – Filtering, Transparent Bridges, spanning tree and Source Routing Bridges, Bridges Connecting Different LANs</p> <p>5.7 Remote bridges</p>	09	10
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		UNIT- 6: The Medium Access Sublayer 6.1 Random Access Protocols ALOHA – pure and slotted 6.2 CSMA – 1-persistent, p-persistent and non-persistent CSMA/CD, CSMA/CA 6.3 Controlled Access Reservation, Polling and Token Passing 6.4 Channelization FDMA, TDMA and CDMA-Analogy, Idea, Chips, Data Representation, Encoding and Decoding, Signal Level, Sequence Generation(Enough problems should be covered on every topic.)	07	08
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DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Internet Programming-I

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1. Introduction to web techniques 1.1 HTTP basics, Introduction to Web server and Web browser 1.2 Introduction to PHP 1.3 What does PHP do? 1.4 Lexical structure 1.5 Language basics	08	09
		UNIT- 2: Function and String 2.1 Defining and calling a function 2.2 Default parameters 2.3 Variable parameters, Missing parameters 2.4 Variable function, Anonymous function 2.5 Types of strings in PHP 2.6 Printing functions 2.7 Encoding and escaping	08	09
2	AUGUST	UNIT- 2: Function and String 2.8 Comparing strings 2.9 Manipulating and searching strings 2.10 Regular expressions	02	02
		UNIT - 3 Arrays 3.1 Indexed Vs Associative arrays 3.2 Identifying elements of an array 3.3 Storing data in arrays	06	07

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Programming in Java-I

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1. An Introduction to Java 1.1 A Short History of Java 1.2 Features or buzzwords of Java 1.3 Comparison of Java and C++ 1.4 Java Environment 1.5 Simple java program 1.6 Java Tools – jdb, javap, javadoc 1.7 Java IDE – Eclipse/NetBeans (Note: Only for Lab Demonstration)	04	05
		UNIT- 2: 2. An Overview of Java 2.1 Types of Comments 2.2 Data Types 2.3 Final Variable 2.4 Declaring 1D, 2D array 2.5 Accepting input using Command line argument 2.6 Accepting input from console (Using BufferedReader class)	04	05
		UNIT- 3: 3. Objects and Classes 3.1 Defining Your Own Classes 3.2 Access Specifiers (public, protected, private, default) 3.3 Array of Objects 3.4 Constructor, Overloading Constructors and use of 'this' Keyword 3.5 static block, static Fields and methods 3.6 Predefined class – Object class methods (equals(), toString(), hashCode(), getClass()) 3.7 Inner class	08	09

2	AUGUST	3.8 Creating, Accessing and using Packages 3.9 Creating jar file and manifest file 3.10 Wrapper Classes 3.11 Garbage Collection (finalize() Method) 3.12 Date and time processing	07	07
		UNIT- 4: Inheritance and Interface 4.1 Inheritance Basics (extends Keyword) and Types of Inheritance 4.2 Superclass, Subclass and use of Super Keyword 4.3 Method Overriding and runtime polymorphism 4.4 Use of final keyword related to method and class 4.5 Use of abstract class and abstract methods 4.6 Defining and Implementing Interfaces 4.7 Runtime polymorphism using interface 4.8 Object Cloning	04	04
		UNIT- 5: Exception Handling 5.1 Dealing Errors 5.2 Exception class, Checked and Unchecked exception 5.3 Catching exception and exception handling 5.4 Creating user defined exception 5.5 Assertions UNIT- 6: Strings, Streams and Files 6.1 String class and StringBuffer Class 6.2 Formatting string data using format() method 6.2 Using the File class 6.3 Stream classes Byte Stream classes Character Stream Classes 6.4 Creation of files	05	05

3	SEPTEMBER	UNIT- 6: Strings, Streams and Files 6.5 Reading/Writing characters and bytes 6.6 Handling primitive data types 6.7 Random Access files	02	02
		UNIT- 7: User Interface Components with AWT and Swing 7.1 What is AWT ? What is Swing? Difference between AWT and Swing. 7.2 The MVC Architecture and Swing 7.3 Layout Manager and Layouts, The JComponent class 7.4 Components – JButton, JLabel, JText, JTextArea, JCheckBox and JRadioButton, JList, JComboBox, JMenu and JPopupMenu Class, JMenuItem and JCheckBoxMenuItem, JRadioButtonMenuItem, JScrollBar 7.5 Dialogs (Message, confirmation, input), JFileChooser, JColorChooser 7.6 Event Handling: Event sources, Listeners 7.7 Mouse and Keyboard Event Handling 7.8 Adapters 7.9 Anonymous inner class	10	10
		UNIT- 8: Applet 8.1 Applet Life Cycle 8.2 appletviewer tool 8.3 Applet HTML Tags 8.4 Passing parameters to Applet 8.5 repaint() and update() method	04	05

DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS COMPLETION REPORT
ACADEMIC YEAR-2017-2018
SEM-I

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME –Object Oriented Software Engineering

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES	CONDUCTED LECTURES
1	JULY	UNIT- 1: Object Oriented Concepts and Principles 1.1 What is Object Orientation ? - Introduction , Object , Classes and Instance , Polymorphism, Inheritance 1. 2 Object Oriented System Development- Introduction, Function/Data Methods (With Visibility), Object Oriented Analysis, Object Oriented Construction 1.3 Identifying the Elements of an Object Model 1.4 Identifying Classes and Objects 1.5 Specifying the Attributes (With Visibility) 1.6 Defining Operations 1.7 Finalizing the Object Definition	04	05
		UNIT- 2: Introduction to UML 2.1 Concept of UML 2.2 Advantages of UML	02	02
		UNIT- 3: Basic Structural Modeling 3.1 Classes 3.2 Relationship 3.3 Common Mechanism 3.4 Class Diagram (Minimum three examples should be covered)	05	06
		UNIT- 4: Advanced Structural Modeling 4.1 Advanced Classes 4.2 Advanced Relationship	05	06

		<p>Data Management Component, The Resource Management Component, Inter Sub System Communication</p> <p>7.4 Object Design Process</p> <p>UNIT- 8: Architectural modeling</p> <p>8.1 Component</p> <p>8.2 Components Diagram (Minimum two examples should be covered)</p> <p>8.3 Deployment Diagram (Minimum two examples should be covered)</p> <p>8.4 Collaboration Diagram (Minimum two examples should be covered)</p> <p>UNIT- 9: Object Oriented Testing</p> <p>9.1 Object Oriented Testing Strategies</p> <p>9.2 Test Case Design for Object Oriented Software</p> <p>9.3 Inter Class Test Case Design</p>	<p>06</p> <p>05</p>	<p>07</p> <p>06</p>
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KTSP'S
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505
DEPARTMENT OF ENGLISH
Syllabus Completion Report
YEAR-2017-2018

Sr.no	CLASS	SUBJECT	TOTAL DIVISIONS	SUBJECT TEACHER
1	FYBA	Com.English	3	Prof.A.G.Kulkarni Prof.Dr.H.J.Chavan Prof.S S Alhat Prof.R H Kale
2		Additional English	1	Prof.A.G.Kulkarni
3		Functional English-I	-	Dr. V. Y.Raskar
4		Functional English-II		Prof.S S Alhat Prof S S Dhore
5	FYB.com	Com.English	4	Dr. V. Y.Raskar Prof.S S Alhat Prof S S Dhore Prof.R H Kale
6	SYBA	Com.English	2	Prof.S S Alhat Prof S S Dhore
7		General Paper-II	-	Prof.Dr.H.J.Chavan Prof.S S Dhore
8		Spl Paper-I	-	Prof.A.G.Kulkarni
9		Spl Paper-II	-	Dr. V. Y.Raskar

10		Functional English-III	-	Prof S S Dhore
11		Functional English-IV	-	Prof.Dr.H.J.Chavan Prof.S S Alhat
12	SYBsc	English	1	Prof.Dr.H.J.Chavan Prof.R H Kale
13	SYBcs	English	-	Prof.S S Alhat Prof.R H Kale
14	TYBA	Com.English	-	Prof.A.G.Kulkarni Dr.V.Y.Raskar
15		General Paper-III	-	Dr.V.Y.Raskar
16		Spl Paper-III	-	Prof.Dr.H.J.Chavan Prof.S S Alhat
17		Spl Paper-IV	-	Prof.Dr.H.J.Chavan Prof.A.G.Kulkarni Prof.S S Alhat
18		Functional English- V	-	Prof S S Dhore
19		Functional English- VI	-	Prof.S S Alhat

		General Paper-III	-	Dr.V.Y.Raskar
		Spl Paper-III	-	Prof.Dr.H.J.Chavan
		Spl Paper-IV	-	Prof.Dr.H.J.Chavan Prof.A.G.Kulkarni

		Functional English- V	-	Prof S S Dhore
		Functional English- VI	-	Prof.S S Alhat

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Year: 2017—18 **Name of the teacher: Mrs.Alhat S.S.** **Sub: English**
Class: FYBA(B/C)
Paper: Compulsory English

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	An Astrologer's Day	5	5	
2	July	Our Urgent Need of Self-Esteem	5	5	
3	July	A Red Red Rose	3	3	
4	July—August	Articles	3 (2+1)	3	
5	Aug	Taking Leave	3	3	
6	Aug	Introducing Yourself	2	2	
7	Aug	The Gift of the Magi	4	4	
8	Aug	Where the mind is without fear	3	3	
9	Aug	Prepositions	3	3	
10	Sept	Introducing people to one another	2	2	
11	Sept	Making requests and asking for directions	2	2	
12	Sept	Karma	5	5	
13	Sept	If you call me	3	3	
14	Sept	Verbs	3	3	
15	Sept	Making and accepting an apology	2	2	
Total			48	48	
Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	Nov	Tryst with destiny	5	5	
2	Nov	Upon Westminster bridge	3	3	
3	Dec	Tenses	5	5	
4	Dec	Inviting and accepting/declining an invitation	2	2	
5	Dec	Making a complaint	2	2	
6	Dec	Youth and the tasks ahead	5	5	
7	January	Prospects of democracy in India	4	4	
8	January	An old woman	3	3	
9	January	Congratulating, expressing sympathy and offering condolences	2	2	
10	January	Making suggestions, offering advice and persuading	2	2	
11	Jan-Feb	The eyes are not here	5	5	
12	Jan-Feb	Success is counted sweetest	3	3	
13	Feb-Mar	Subject-verb agreement (Concord)	5	5	
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2	2	
Total			48	48	

(Mrs.Alhat S.S.)
Subject Teacher

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Dr. Hemant J. Chavan
Year: 2017—18
Paper: Compulsory English
Term I

Sub: English
Class: FYBA(B)

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	An Astrologer's Day	5	5	
2	July	Our Urgent Need of Self-Esteem	5	5	
3	July	A Red Red Rose	3	3	
4	July—August	Articles	3 (2+1)	3	
5	Aug	Taking Leave	3	3	
6	Aug	Introducing Yourself	2	2	
7	Aug	The Gift of the Magi	4	4	
8	Aug	Where the mind is without fear	3	3	
9	Aug	Prepositions	3	3	
10	Sept	Introducing people to one another	2	2	
11	Sept	Making requests and asking for directions	2	2	
12	Sept	Karma	5	5	
13	Sept	If you call me	3	3	
14	Sept	Verbs	3	3	
15	Sept	Making and accepting an apology	2	2	
Total			48	48	

(Dr.H.J.Chavan)
Subject Teacher

Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	Nov	Tryst with destiny	5	5	
2	Nov	Upon Westminster bridge	3	3	
3	Dec	Tenses	5	5	
4	Dec	Inviting and accepting/declining an invitation	2	2	
5	Dec	Making a complaint	2	2	
6	Dec	Youth and the tasks ahead	5	5	
7	January	Prospects of democracy in India	4	4	
8	January	An old woman	3	3	
9	January	Congratulating, expressing sympathy and offering condolences	2	2	
10	January	Making suggestions, offering advice and persuading	2	2	
11	Jan-Feb	The eyes are not here	5	5	
12	Jan-Feb	Success is counted sweetest	3	3	
13	Feb-Mar	Subject-verb agreement (Concord)	5	5	
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2	2	
Total			48	48	

(Prof.Kale R H)

Subject Teacher

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof.A.G.Kulkarni Sub: English

Year: 2017—18

Class: FYBA(A)

**Paper: Compulsory English
Term I**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	An Astrologer's Day	5	5	
2	July	Our Urgent Need of Self-Esteem	5	5	
3	July	A Red Red Rose	3	3	
4	July—August	Articles	3 (2+1)	3	
5	Aug	Taking Leave	3	3	
6	Aug	Introducing Yourself	2	2	
7	Aug	The Gift of the Magi	4	4	
8	Aug	Where the mind is without fear	3	3	
9	Aug	Prepositions	3	3	
10	Sept	Introducing people to one another	2	2	
11	Sept	Making requests and asking for directions	2	2	
12	Sept	Karma	5	5	
13	Sept	If you call me	3	3	
14	Sept	Verbs	3	3	
15	Sept	Making and accepting an apology	2	2	
Total			48	48	

(prof.A.G.Kulkarni)
Subject Teacher

Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	Nov	Tryst with destiny	5	5	
2	Nov	Upon Westminster bridge	3	3	
3	Dec	Tenses	5	5	
4	Dec	Inviting and accepting/declining an invitation	2	2	
5	Dec	Making a complaint	2	2	
6	Dec	Youth and the tasks ahead	5	5	
7	January	Prospects of democracy in India	4	4	
8	January	An old woman	3	3	
9	January	Congratulating, expressing sympathy and offering condolences	2	2	
10	January	Making suggestions, offering advice and persuading	2	2	
11	Jan-Feb	The eyes are not here	5	5	
12	Jan-Feb	Success is counted sweetest	3	3	
13	Feb-Mar	Subject-verb agreement (Concord)	5	5	
14	Feb-Mar	Expressing agreement/disagreement and seeking clarification	2	2	
Total			48	48	

(Prof.A Kulkarni)

Subject Teacher

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof. A.G. Kulkarni Sub: English

Year: 2017-18

Class: FYBA

Paper: Additional English

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	INTRODUCTION	5	5	
2		SONNET 29	5	5	
3		NO MEN ARE FOREIGN	3	3	
4		A LESSON MY FATHER TAUGHT ME	3	3	
5	Aug	TOAETED ENGLISH	3	3	
6		ROMANCE OF A BUSY BROKER	2	2	
7		A DAY'S WAIT	4	4	
8		NOTES	3	3	
9		REVISION OF THE TOPICS	3	3	
10		HOME WORK	2	2	
11	Sept	THE WORLD IS TOO MUCH WITH US	2	2	
12		THE LISTNERS	5	5	
13		CHARACTERISTICS OF HUMAN LANGUAGE	3	3	
14		FUNCTIONS OF LANGUAGE	3	3	
15		REVISION	2	2	
Total			48	48	
Term II					
Sr. No.	Month	Topic	No.of lectures allotted	No.of lectures engaged	Remarks
1	Nov	THE DALL'S HOUSE	5	5	
2		MARRIAGE IS A PRIVATE AFFAIR	3	3	
3	Dec	ROD NOT TAKEN	5	5	
4		THE SUN RISING	2	2	
5		THE MOUNTAIN AND THE SQUIRREL	2	2	
6		BALLAD OF THE LNDLORD	5	5	
7	January	LITHANIA	4	4	
8		SWAN SONG	3	3	
9		SWAN SONG	2	2	
10		ASPECTS OF LNGUAGE	2	2	
11	Jan-Feb	BENCHES OF LINGUISTICS	5	5	
12		INTRODUCTION TO THE SOUNDS OF ENGLISH	3	3	
13	Feb-Mar	REVISION NOTES	5	5	
14		NATURE OF THE QUESTION PAPER	2	2	
Total			48	48	

(Prof. A.G. Kulkarni)

KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar
Class: FYBA

Sub: Functional English I Year: 2017-18(Term-I)

Paper I: An Introduction to English Language and Writing Skills in English

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	July	What is language?	3	3	
2		Levels of linguistic analysis	5	5	
3	Aug	Verbal and non verbal communication	4	4	
4		Organs of speech	2	2	
5		Speech mechanism	2	2	
6		Vowels, consonants	5	5	
7		Consonant clusters	2	2	
8	Sept	Remedial grammar	4	4	
		Tenses and concord	3	3	
10		Passive voice	3	3	
11		Countable nouns	3	3	
12		Uncountable nouns	4	4	
13	Octo	Common Indian errors	4	4	
14		Understanding a passage-its content and structure	3	3	
15		Use of a dictionary	3	3	
Total			50	50	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSPM's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: Functional English I Year: 2016-17 (Term-II)

Class: FYBA

Paper I: An Introduction to English Language and Writing Skills in English

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	Dec	Define phonetics & Phonology & Difference between them	4	4	
2		Syllable	4	4	
3		Word accent	4	4	
4		Sentence accent	4	4	
5	January	Weak forms	4	4	
6		Intonation	4	4	
7		Writing a paragraph	3	3	
8		Types of paragraph	3	3	
9		Writing a paragraph(Guided composition)	2	2	
10	Feb	Information transfer	8	8	
11		Converting information from charts	5	5	
12		Converting information from tables	3	3	
13	March	Converting information verbally and vice-a-versa	4	4	
Total			52	52	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof.Sandeep Dhore & Prof.A.G.Kulkarni
Sub: Functional English II Year: 2017-18(Term-I) Class: FYBA
Paper II: Oral Communication in English

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	July	Introducing oneself	12	12	
2	Aug/Sept	Introducing others. Simple oral descriptions	12	12	
3	Sept	describing familiar things, places, persons, pictures	12	12	
4	Oct	Describing simple events, Routine Activities of Oneself and others & Key Competency Modules	12	12	
Total			48	48	

Subject Teacher

Prof.A.G.Kulkarni&

Prof.S.S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.Sandeep Dhore & Prof.A.G.Kulkarni
Sub: Functional English II Year: 2017-18(Term-II) Class: FYBA
Paper II: Oral Communication in English**

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	Nov/Dec	Telling stories with help of Points / Pictur	12	12	
2	Dec	Asking questions to get Information	12	12	
3	Jan/Feb	Reading a Dialogue/ drama	12	12	
4	Feb/Mar	Making a short speech on a given subject for about 2/3 minutes Telephonic Communication	12	12	
Total			48	48	

Subject Teacher

Prof.A.G.Kulkarni&
Prof.S.S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com (D)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	No. of lecturers engaged	Remarks
1	July	The Power of Prayer	4	4	
2		Water: The Elixir for life	4	4	
3		A Talk on Advertising	6	6	
4	Aug	The Gold Frame	4	4	
5		The Lottery Ticket	6	6	
6		The Harp of India	4	4	
7	Sept	Money-Madness	3	2	
8		Metting & Greeting People	4	4	
9		Dialogues	4	4	
10		Group Discussion	3	2	
11	Oct	Interview	5	5	
12		Interviewing Skills	5	5	
Total			52	50	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
tatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Competitive Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: Compulsory English

Year: 2017-18(Term-II)

Class: F.Y.B.Com (D)

Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	No. of lecturers engaged	Remarks
1	Dec	Indra Nooyi:A Corporate Giant	4	4	
2		The need for excellence	4	4	
3		Toasted English	6	6	
4	Jan	The Woodrose	4	4	
5		A Devoted Son	4	6	
6		The Soul's Prayer	3	4	
7		Stooping By Woods on a Snowy Evening	3	2	
8	Feb	Letter Writing	5	4	
9		Report Writing	5	4	
10		Resume Writing	5	2	
11	March	E;Mails	6	5	
Total			49	49	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. DHORE S S Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com (A/C)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	No. of lecturers engaged	Remarks
1	July	The Power of Prayer	4	4	
2		Water: The Elixir for life	4	4	
3		A Talk on Advertising	6	6	
4	Aug	The Gold Frame	4	4	
5		The Lottery Ticket	6	6	
6		The Harp of India	4	4	
7	Sept	Money-Madness	3	2	
8		Metting & Greeting People	4	4	
9		Dialogues	4	4	
10		Group Discussion	3	2	
11	Oct	Interview	5	5	
12		Interviewing Skills	5	5	
Total			52	50	

Subject Teacher
Prof.Dhore S S

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Prof.Dhore S S Sub: Compulsory English
Year: 2017-18(Term-II) Class: F.Y.B.Com (A/C)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	No. of lectures allotted	Remarks
1	Dec	Indra Nooyi:A Corporate Giant	4	4	
2		The need for excellence	4	4	
3		Toasted English	6	6	
4	Jan	The Woodrose	4	4	
5		A Devoted Son	4	4	
6		The Soul's Prayer	3	3	
7		Stooping By Woods on a Snowy Evening	3	3	
8	Feb	Letter Writing	5	5	
9		Report Writing	5	5	
10		Resume Writing	5	5	
11	March	E;Mails	6	6	
Total			49	49	

Subject Teacher
Prof.Dhore S S

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof. Alhat S S Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com (C/D)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	No. of lecturers engaged	Remarks
1	July	The Power of Prayer	4	4	
2		Water: The Elixir for life	4	4	
3		A Talk on Advertising	6	6	
4	Aug	The Gold Frame	4	4	
5		The Lottery Ticket	6	6	
6		The Harp of India	4	4	
7	Sept	Money-Madness	3	2	
8		Meeting & Greeting People	4	4	
9		Dialogues	4	4	
10		Group Discussion	3	2	
11	Oct	Interview	5	5	
12		Interviewing Skills	5	5	
Total			52	50	

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof.KALE R H Sub: Compulsory English
Year: 2017-18(Term-I) Class: F.Y.B.Com (E/F)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted while planning	No. of lecturers engaged	Remarks
1	July	The Power of Prayer	4	4	
2		Water: The Elixir for life	4	4	
3		A Talk on Advertising	6	6	
4	Aug	The Gold Frame	4	4	
5		The Lottery Ticket	6	6	
6		The Harp of India	4	4	
7	Sept	Money-Madness	3	2	
8		Metting & Greeting People	4	4	
9		Dialogues	4	4	
10		Group Discussion	3	2	
11	Oct	Interview	5	5	
12		Interviewing Skills	5	5	
Total			52	50	

Subject Teacher
Prof.Kale R H

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof.Kale R H Sub: Compulsory English
Year: 2017-18(Term-II) Class: F.Y.B.Com (E/F)
Paper: Compulsory English (A Pathway to Success)

Sr. No .	Month	Topics	No. of lectures allotted	Remarks
1	Dec	Indra Nooyi:A Corporate Giant	4	
2		The need for excellence	4	
3		Toasted English	6	
4	Jan	The Woodrose	4	
5		A Devoted Son	4	
6		The Soul's Prayer	3	
7		Stooping By Woods on a Snowy Evening	3	
8	Feb	Letter Writing	5	
9		Report Writing	5	
10		Resume Writing	5	
11	March	E;Mails	6	
Total			49	

Subject Teacher
Prof.Kale R H

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.S.S. Dhore Sub: Compulsory English
Year: 2017-18(Term-I) Class: SYBA (A)
Paper: Compulsory English (Literary Landscape)**

Sr. No.	Month	Topic	No. of lectures allotted while planning	No. of lecturers engaged Div B	Remarks
1	July	Playing the English Gentleman	4	4	
2		The homecoming	6	6	
3	Aug	The quality of mercy	4	4	
4		The village schoolmaster	4	4	
5		A letter by Hazlitt to his son	4	4	
6		The solitary reaper	4	4	
7	Sept	O captain! my captain!	4	4	
8		Freedom of the press	4	4	
9		Vocabulary	8	8	
10	Oct	vocabulary	4	2	
11		Grammar	6	6	
Total			52	50	

Subject Teacher

Prof.S.S. Dhore

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Mr Dhore S.S. Sub: Compulsory English
Year: 2017-18 (Term-II) Class: SYBA (A)
Paper: Compulsory English (Literary Landscape)

Sr. No.	Month	Topic	No. of lectures allotted while planning	No. of lecturers engaged Div B	Remarks
1	Dec	A Cup of Tea	4	4	
2		Laugh and be Merry	4	4	
3		The Last Leaf	4	4	
4	Jan	Still I Rise	4	4	
5		Kalpana Chawla	4	4	
6		Another Woman	4	4	
7	Feb	My Lost Dollar	4	4	
8		My Grandmothers House	4	4	
9		Grammar	6	6	
10	Mar	Paragraph Writing	4	4	
11		Report Writing	4	4	
12		Letter Writing	4	4	
Total			50	50	

Subject Teacher

Prof.S.S. Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.S.S. Alhat Sub: Compulsory English
Year: 2017-18(Term-I) Class: SYBA (B)
Paper: Compulsory English (Literary Landscape)**

Sr. No.	Month	Topic	No. of lectures allotted while planning	No. of lecturers engaged Div B	Remarks
1	July	Playing the English Gentleman	4	4	
2		The homecoming	6	6	
3	Aug	The quality of mercy	4	4	
4		The village schoolmaster	4	4	
5		A letter by Hazlitt to his son	4	4	
6		The solitary reaper	4	4	
7	Sept	O captain! my captain!	4	4	
8		Freedom of the press	4	4	
9		Vocabulary	8	8	
10	Oct	vocabulary	4	2	
11		Grammar	6	6	
Total			52	50	

Subject Teacher

Prof.S.S. Alhat

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Mrs. Alhat S.S. Sub: Compulsory English
Year: 2017-18 (Term-II) Class: SYBA (B)
Paper: Compulsory English (Literary Landscape)**

Sr. No.	Month	Topic	No. of lectures allotted while planning	No. of lecturers engaged Div B	Remarks
1	Dec	A Cup of Tea	4	4	
2		Laugh and be Merry	4	4	
3		The Last Leaf	4	4	
4	Jan	Still I Rise	4	4	
5		Kalpana Chawla	4	4	
6		Another Woman	4	4	
7	Feb	My Lost Dollar	4	4	
8		My Grandmothers House	4	4	
9		Grammar	6	6	
10	Mar	Paragraph Writing	4	4	
11		Report Writing	4	4	
12		Letter Writing	4	4	
Total			50	50	

Subject Teacher

Prof.S.S. Alhat

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Dr. Hemant J. Chavan Sub: English

Year: 2017-18

Annual

Class: SYBA

Paper: General Paper II: Study of English Language and Literature

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	Introduction—What is Literature?	1	1	
2	July	Introduction—Examining some literary devices	1.5	1.5	
3	July	Introduction—Plato and mimesis	1.5	1.5	
4	July	Introduction—Components of a literary piece and approaches to literature	1.5	1.5	
5	July	Introduction—Elements of the short story	1.5	1.5	
6	July	Introduction—Short story: A short history	1.5	1.5	
7	July	Introduction—Short story: The genre	1.5	1.5	
8	July	The Three Questions—Lev Nikolayevich Tolstoy	4	4	
9	July—August	Mother of a Traitor—Maxim Gorky	4 (1+3)	4	
10	August	The Bet—Anton Chekhov	4	4	
11	August	My Uncle Jules—Guy de Maupassant	4	4	
12	August	The Bottle Imp—R.L.Stevenson	3	3	
13	Aug—September	Phonology—Organs of speech, speech mechanisms	4 (1+3)	4	
14	September	Phonology—Description and classification of consonants and vowels	3	3	
15	September	Phonology—Concept of syllable	3	3	
16	Oct	Phonology—Word accent, sentence accent	3	3	
17	Oct	Phonology—Tone groups, placement of nuclear/tonic accent	3	3	
18	Oct	Phonology—Concept of intonation, uses/types of tones	3	3	
Total			48	48	

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Year: 2017-18

Name of the teacher: Prof.Dhore S S Sub: English
Annual
Paper: General Paper II: Study of English Language and Literature
Term II

Class: SYBA

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	After Twenty Years—O.Henry	3	3	
2	December	Lawley Road—R.K.Narayan	3	3	
3	December	The Open Window—Hector Hugh Munro	3	3	
4	December	Kabuliwallah—Rabindranath Tagore	3	3	
5	December	A Signal Man—Charles Dickens	4	4	
6	January	Morphology—What is morphology?	5	5	
7	January	Morphology—Concept of morpheme, allomorph, zero allomorph, types of morphemes (free and bound), Prefixes and Suffixes (class-changing and class-maintaining)	6	6	
8	January	Morphology—Inflectional and Derivational suffixes	5	5	
9	February	Sociolinguistics—National varieties of English: British, American and Indian	5	5	
10	February	Sociolinguistics—Regional and social dialects, standard dialect, concept of register, formal and informal styles	6	6	
11	February	Sociolinguistics—Pidgins and Creoles, code-switching and code-mixing, borrowings	5	5	
Total			48	48	

Prof.Dhore S S
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.KULKARNI A G Sub: SPL-I
Year: 2017-18(Term-I) Class: SYBA
Paper SPL I: UNDERSTANDING DRAMA**

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	JUNE	What is Drama?	8	8	
2	JULY	Elements of Drama	8	8	
3		Types of drama	8	8	
4	AUGUST	The Importance of being Earnest by Oscar Wilde-theme	3	3	
5		characters	3	3	
6		plot	3	3	
7		Dialogue	3	3	
8		Stage properties	3	3	
9	SEPT	The Three Unities	3	3	
10		conflict	3	3	
11	OCT	Elements of structure	3	3	
		TOTAL	48	48	

Subject Teacher

Prof.Kulkarni A G

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.A.G.Kulkarni Sub: Spl-I
Year: 2017-18 (Term-II) Class: SYBA
Paper SPL I: UNDERSTANDING DRAMA**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lecturers engaged	Remarks
1	NOV	Death of a Salesman bt Arthur Miller-Theme	3	3	
2		character	3	3	
3		plot	3	3	
4	DEC	Dialogue	3	3	
5		Stage properties	3	3	
6		The Three Unities	3	3	
7		conflict	3	3	
8		Elements of structure	3	3	
9	JAN	Hayvandana by Girish Karnad-Theme	3	3	
10		character	3	3	
11		plot	3	3	
12	FEB	Dialogue	3	3	
13		Stage properties	3	3	
14		The Three Unities	3	3	
15	MARCH	conflict	3	3	
16		Elements of structure			
		TOTAL	48	48	

Subject Teacher

Prof.A.G.Kulkarni

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: English Special Paper-II
Year: 2017-18 (Term-I) Class: SYBA
Paper: English Special Paper II: Appreciating Poetry (Auroral Musings)

Sr. No.	Month	Topic	No. of lectures allotted	No. of lecturers engaged	Remarks
	July	What is poetry?	2	2	
		Elements of poetry	3	3	
		Types of poetry	3	3	
		The ballad of sir Patrick Spens	3	3	
	Aug	Edmund Spenser- Men call you fair	2	2	
		Sir Philip Sidney- O grammar rules	3	3	
		William Shakespeare- Sonnet 130	3	3	
		John Donne- Broken heart, Better my heart	6	6	
	Sept	Andrew Marvell- The coronet, The definition of love	6	6	
		John Milton- The invocation, On his blindness	5	5	
		John Dryden- Alexander's feast	3	3	
		Alexander Pope- Rape of the lock, 'toilet scene'	3	3	
	Octo	Thomas Gray- Ode on the death of a favourite cat, drowned in a tub of gold fishes	10	10	
	Total		52	52	

Subject Teacher
Dr. Vikas Y. Raskar

KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar Sub: English Special Paper-II
Year: 2017-18 (Term-II) Class: SYBA
Paper: English Special Paper II: Appreciating Poetry (Auroral Musings)

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	Dec	William Wordsworth- Expostulation and reply, The tables turned, A slumber did my spirit seal , S T Coleridge- The nightingale, Kubala Khan: A vision in fragments	7	7	
2		P B Shelley- Ode to the west wind	4	4	
3		John Keats- La belle dame sans merci, Ode to autumn	4	4	
4	Jan	Alfred Tennyson- Ulysses	4	4	
5		Robert Browning- my last duchess	4	4	
6		Mathew Arnold- Dover beach	4	4	
7		Dane Rossetti- The blessed damozel	4	4	
8	Feb	Thomas Hardy- The oxen, To an unborn pauper child	6	6	
9		G M Hopkins- Pied beauty, God's grandeur	4	4	
10		W B Yeats- Sailing to Byzantium	3	3	
11	March	Ralph Emerson- Brahma, Walt Whitman- A noiseless patient spider	5	5	
12		Emily Dickinson- Because I could not stop for death	2	2	
Total			51	51	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English III Year: 2017-18 (Term-I)

Class: SYBA

Paper III: Advanced Writing Skills and Introduction to Electronic Media

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	July	Vocabulary Building	10	10	
2	Aug	Register and Style	7	7	
		Defining and describing	9	9	
3	Sept	Paragraph writing	10	10	
4	Oct	Letter Writing	7	7	
		Scrape book	5	5	
	Oct	Test	2	2	
Total			50	50	

Subject Teacher
Prof. Dhore S.S.

KTSP Mandal's

Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English III Year: 2017-18 (Term-II)

Class: SYBA

Paper III: Advanced Writing Skills and Introduction to Electronic Media

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	Dec	Writing Reports	8	8	
2	Jan	Preparing and writing Bibliography	6	6	
		Writing Scripts for compering a programme	9	9	
3	Feb	Introduction to Electronic Media: Radio	9	9	
4		Introduction to Electronic media: TV	9	9	
5	Mar	Similarity and differences between Radio and TV	7	7	
		Test	2	2	
Total			50	50	

Subject Teacher
Prof. Dhore S.S.

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: ALHAT S S Sub: Functional English (Vocational)

Year: 2017-18

Annual

Class: SYBA

Paper: Functional English Paper IV: Oral Communication in English: Intermediate and Key Competency Modules (Practical Paper)

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July—August	Reading out news from the newspaper	6	6	
2	August—Sept	Talking in different situations: Formal and informal	6	6	
3	Sept—Oct	Compeering/anchoring a programme	6	6	
4	October	Role playing	6	6	
Total			24	24	
Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	Group discussion	8	8	
2	December	Personal Interview	6	6	
3	January	Interviewing	6	6	
4	January	Conducting Panel discussion	6	6	
5	Jan-Feb	Preparing and presenting an ad of a product (emphasis on language)	8	8	
6	February	Opening/closing a radio/TV programme	3	3	
7	February	Appreciation of a TV/Radio programme	3	3	
8	February	Abstract Thinking	3	3	
9	February	Health and Diet	3	3	
10	March	Basic Human Values, Individual and Society	2	2	
Total			48	48	

Prof. Alhat S S
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Dr. Hemant J. Chavan Sub: Functional English (Vocational)
Year: 2017-18 Annual Class: SYBA
Paper: Functional English Paper IV: Oral Communication in English: Intermediate and Key Competency Modules (Practical Paper)

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July—August	Reading out news from the newspaper	6	6	
2	August—Sept	Talking in different situations: Formal and informal	6	6	
3	Sept—Oct	Compeering/anchoring a programme	6	6	
4	October	Role playing	6	6	
Total			24	24	

(Dr.H.J.Chavan)
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: Compulsory English

Year: 2017-18 (Term-I)

Class: TYBA (A & B)

Paper: Compulsory English (Literary Pinnacles)

Sr. No.	Month	Topic	No. of lectures allotted while planning	No. of lecturers engaged on Div A & B	Remarks
1	July	Intro of Prose & Poetry	4	2+2=4	
2		Uncle Podger Hangs a Picture	4	2+2=4	
3	Aug	How Wealth Accumulates and Men Decay	4	2+2=4	
4		Defining Poetry, All The Word's a Stage	4	2+2=4	
5		La Belle Dame Sans Merci	4	2+2=4	
6		An Intro to Communicational Skills	2	1+1=2	
7	Sept	Define Communication, Features of Communication,	8	4+4=8	
8		Types of Communication & Instances & exercises of Communication	8	4+4=8	
9	Octo	The Process of Communication	4	2+2=4	
10		Verbal & Non-verbal Communication	6	3+3=6	
11		Tips for Effective Communication	6	3+2=5	
Total			54	53	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Vikas Y. Raskar

Sub: Compulsory English

Year: 2017-18 (Term-II)

Class: TYBA (A &B)

Paper: Compulsory English (Literary Pinnacles)

Sr. No.	Month	Topic	No. of lectures allotted Div A & B	No. of lectures engaged Div A & B	Remarks
1	Dec	On the rule of the road	6 (3+3)	6 (3+3)	
2		The pleasures of ignorance	6 (3+3)	6 (3+3)	
3	Jan	Afterwards by Hardy	4 (2+2)	4 (2+2)	
4		Afterwards by Hardy, The ballad of father Gilligan by W.B. Yeats, An introduction to soft skills	10 (5+5)	10 (5+5)	
5	Feb	Leadership Skills	6 (3+3)	6 (3+3)	
6		Teamwork Skills, Time Mangement Goal, Setting	10 (5+5)	10 (5+5)	
7	March	Stress Management, Positive Attitude	8 (4+4)	8 (4+4)	
Total			50	50	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus completion report

Name of the teacher: **Vikas Y. Raskar** Sub: **English General Paper III**
Year: **2017-18 (Term-I)** Class: **TYBA**
Paper: **Advanced Study of English Language and Literature**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lecturers engaged	Remarks
1	July	Intro to Indian Writing in English & Indian Poetry	4	4	
2		Song of the Hindustanee Minstrel	4	4	
3		Silent Steps	4	4	
4	August	Peace	2	1	
5		Song of Radha, the Milkmaid	3	3	
6		Poet, Lover, Birdwatcher	3	3	
7		An Introduction	3	2	
8		The Striders	3	2	
9	Sept	Sea Breeze Bombay	3	4	
10		Syntax, Concept of Phrase,	3	4	
11		Phrase Structure Rules, Types of Phrases	6	8	
12		Phrases-Adj, Adv, PP & VP	4	6	
13	Octo	Concept & parts of Clauses, Types of Sentences, Functional Classification, Wh-ques, Yes-No, Tag que, Negative Sen, do-Support & Imperative	8	7	
Total			50	52	

Subject Teacher
Dr. Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Vikas Y. Raskar Sub: English General Paper III
Year: 2017-18 (Term-II) Class: TYBA
Paper: Advanced Study of English Language and Literature**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures allotted	Remarks
1	Dec	What is Semantics? Difference bet Denotative & Connotative meaning	6	6	
2		Lexical relations: Synonymy, Antonymy, Homonymy, Homography & Homophony	8	8	
3	Jan	Polysymy, Diff bet Homonymy & Polysemy,	6	6	
4		Superordinate terms & Hyponymy, Metonymy	8	8	
5	Feb	What is Pragmatics?, Speech Acts:Types, Austin's typology, Scarle's typology	6	6	
6		Direct and Indirect Speech Acts	6	6	
7		The Co-operative principle and its Maxims	2	2	
8		The Politeness Principle and its Maxims	2	2	
9	March	The captive air of chandipur-on-sea byMahapatra, The Bus by Arun Kolatkar	4	4	
10		The season of the Plains by Agha Shahid Ali, Tribute to Papa by Mamta Kalia	4	4	
Total			52	52	

Subject Teacher
Dr.Vikas Y. Raskar

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Dr. Hemant J. Chavan Sub: English
Year: 2017-18 Class: TYBA
Paper: English Special Paper III: Appreciating Novel

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July	What's Novel? A brief history of novel as a literary form	3	3	
2	July—August	Elements of Novel: theme, characters, plot, structure, narrative techniques, point of view, conflict, setting and atmosphere, dialogue	9 (4+5)	9	
3	August	Types of Novel: epistolary, picaresque, bildungsroman, historical, regional, psychological, satire, realistic, experimental novel, science fiction	9	9	
4	August—September	Other literary terms related to novel	3 (2+1)	3	
5	September—October	<i>Animal Farm</i> by George Orwell	24 (10+14)	24	
Total			48	48	
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505 Syllabus Completion Report Name of the teacher: Prof. Alhat S S Sub: English Year: 2017-18 Class: TYBA Paper: English Special Paper III: Appreciating Novel					
Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	November—December	<i>The Old Man and the Sea</i> by Ernest Hemingway	24	24	
2	January—February	<i>The Guide</i> by R.K. Narayan	24	24	
Total			48	48	

(Prof. Alhat S S)
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof.KULKARNI A G Sub: SPL-IV
Year: 2017-18(Term-I) Class: TYBA
Paper IV: An Introduction to Literary Criticism and Critical Appreciation.

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	JULY	What is criticism?Definition and principles	4	4	
2		Qualifications of good critic	4	4	
3					
4	AUGUST	Biographical approach to literature	4	4	
5		Sociological approach to literature	4	4	
6	SEPT& OCT	Psychological approach to literature	4	4	
7		Samuel Johnson; Defense of Shakespeare's intermingling of the tragic and the comic in drama	4	4	
Total			24	24	

Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	Unit—II: Helen Gardner: The Sceptre and the Torch	6	6	
2	December	Unit—II: Criticism: Visible and Invisible	6	6	
3	January	Unit—III: Literary/Critical Terms	6	6	
4	January	Unit—IV: Practical criticisms from poems, passages from novels and plays, etc.	6	6	
5	January				
6	February				
7	February				
Total			24	24	

Subject Teacher

Prof.Kulkarni A G

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.Chavan H J Sub: English Special Paper IV
Year: 2017-18 Annual Class: TYBA
Paper: English Special Paper IV: Introduction to Literary Criticism**

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July—August	Classical Criticism	4 (3+1)	4	
2	August	Neo—Classical Criticism	3	3	
3	August	Romantic Criticism	3	3	
4	August—Sept	Victorian Criticism	4 (1+3)	5	
5	Sept	Modernism	4	5	
6	Sept-Oct	Formalist Criticism	3 (2+1)	3	
7	Oct	New Criticism	3	3	
Total			24	24	

Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505

Syllabus Completion Report

**Name of the teacher: Prof.Alhat S S Sub: English Special Paper IV
Year: 2017-18 Annual Class: TYBA
Paper: English Special Paper IV: Introduction to Literary Criticism**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	Terms	4	4	
2	December	Coleridge's theory of Imagination	4	4	
3	January	Coleridge's theory of Imagination	4	4	
4	January	Dryden's essay on dramatic poesy	4	4	
5	January	Dryden's essay on dramatic poesy	4	4	
6	February	terms	2	2	
7	February	terms	2	2	
Total			24	24	

Subject Teacher
Prof.Alhat S S

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Dr. Hemant J. Chavan Sub: English Special Paper IV
Year: 2017-18 Annual Class: TYBA
Paper: English Special Paper IV: Introduction to Literary Criticism**

Term I					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	July—August	Classical Criticism	4 (3+1)	4	
2	August	Neo—Classical Criticism	3	3	
3	August	Romantic Criticism	3	3	
4	August—Sept	Victorian Criticism	4 (1+3)	5	
5	Sept	Modernism	4	5	
6	Sept-Oct	Formalist Criticism	3 (2+1)	3	
7	Oct	New Criticism	3	3	
Total			24	24	
Term II					
Sr. No.	Month	Topic	No. of lectures allotted	No. of lectures engaged	Remarks
1	December	Unit—II: Helen Gardner: The Sceptre and the Torch	6	6	
2	December	Unit—II: Criticism: Visible and Invisible	6	6	
3	January	Unit—III: Literary/Critical Terms	6	6	
4	January	Unit—IV: Practical criticisms from poems, passages from novels and plays, etc.	6	6	
5	January				
6	February				
7	February				
Total			24	24	

(Dr.H.J.Chavan)
Subject Teacher

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

**Name of the teacher: Prof.A.G.Kulkarni Sub: Spl-IV
Year: 2017-18 (Term-II) Class: TYBA
Paper I: An Introduction to Literary Criticism and Critical Appreciation.**

Sr. No.	Month	Topic	No. of lectures allotted	No. of lecturers engaged	Remarks
1	NOV	Classicisim,romanticism,the absurd, modernism	2	2	
2		Allegory and personification	2	2	
3	DEC	Asides,Solliloquis	2	2	
4		Comic relief	2	2	
5		Poetic justice	2	2	
6	JAN	Intentional fallacy	2	2	
7		Round and flat character	2	2	
8	Feb/MARCH	Analysis of poems	10	10	
Total			24	24	

Subject Teacher

Prof.A.G.Kulkarni

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Mr. Sandeep S. Dhore Sub: Fun English V Year: 2017-18 (Term-I)
Class: TYBA
Paper V: Introduction to Print media and Writing for mass media

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	July/Aug	Writing news	8	8	
2	Aug/Sept	Letter to editors expressing views on given data	10	10	
3	Sept/Oct	Changing verbal aspects of an advertisement	10	10	
4		Book reviews	12	12	
5		Key competency modules	8	8	
Total			48	48	

Subject Teacher
Mr. Sandeep S.Dhore

**KTSP Mandal's
Hutatma Rajguru Mahavidyalaya, Rajgurunagar (Pune)-410505**

Syllabus Completion Report

Name of the teacher: Prof. Dhore S.S. Sub: Functional English -V Year: 2017-18 (Term-II)

Class: TYBA

Paper V: Introduction to Print media and Writing for mass media

Sr. No.	Month	Topic	No. of lecturers allotted	No. of lecturers engaged	Remarks
1	Dec	Writing Articles and Features	12	12	
2	Jan	Technical Writing	10	10	
3	Jan-Feb	Translation with reference to Mass Media	10	10	
4	Feb-Mar	Film Review	10	10	
5	Mar	Tests	6	6	
		TOTAL	48	48	

Subject Teacher
Prof. Dhore S.S.

Prof. Alhat s s

Prof. Alhat s s

Hutatma Rajguru Mahavidyalaya, Rajgurunagar

Department of Economics

Time-table

2017-18

Prof.(Dr.)T.G.Gite

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 to 8.20	F.Y.B.Com B	F.Y.B.Com B	S.Y.B.Com. B	S.Y.B.Com. B	S.Y.B.Com. B	
2	8.20 to 9.10	S.Y.B.A. S2	S.Y.B.A. S2	S.Y.B.A. S2			S.Y.B.A S2
3	9.20 to 10.10		T.Y.B.Com B	T.Y.B.Com B	T.Y.B.Com B	T.Y.B.Com B	S.Y.B.Com. B
4	10.10 to 11.00	T.Y.B.A. S3	T.Y.B.A. S3	T.Y.B.A. S3	T.Y.B.A. S3	F.Y.B.Com B	F.Y.B.Com B
5	11.00 to 11.50						

UG=20+PG=04

No. Total Lecture=24

Dr.A.M.Pawar

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 to 8.20	F.Y.B.Com A	F.Y.B.Com A	F.Y.B.A. A		F.Y.B.A. C	T.Y.B.A. G3
2	8.20 to 9.10		F.Y.B.A. A	S.Y.B.A. S1	F.Y.B.A. A	S.Y.B.A S1	F.Y.B.A. C
3	9.20 to 10.10	S.Y.B.A. S1	S.Y.B.A S1	F.Y.B.A. C			
4	10.10 to 11.00				F.Y.B.A. C	F.Y.B.Com A	F.Y.B.Com A
5	11.00 to 11.50	F.Y.B.A. A	T.Y.B.A. G3			T.Y.B.A. G3	T.Y.B.A. G3

UG=20+PG=4

No. Total Lecture=24

Dr.R.S.Shirsi

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 to 8.20		S.Y.B.Com A	T.Y.B.Com A	T.Y.B.Com A	S.Y.B.Com A	
2	8.20 to 9.10	T.Y.B.Com A	T.Y.B.Com A		F.Y.B.Com A (B/F)	F.Y.B.Com A (B/F)	F.Y.B.Com A (B/F)
3	9.20 to 10.10		F.Y.B.Com A (B/F)	T.Y.B.A. S4	T.Y.B.A. S4	T.Y.B.A. S4	T.Y.B.A. S4
4	10.10 to 11.00	S.Y.B.Com. A	S.Y.B.A. G2	S.Y.B.A.. G2			S.Y.B.Com A
5	11.00 to 11.50	S.Y.B.A. G2		T.Y.B.Com A	S.Y.B.A. G2		

UG=20+PG=4

No. Total Lecture=24

Asst.Prof.S.V.Dhanapune

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 to 8.20	F.Y.B.A C	F.Y.B.A C				
2	8.20 to 9.10		F.Y.B.Com G	S.Y.B.Com D	S.Y.B.Com D	S.Y.B.Com D	S.Y.B.Com D
3	9.20 to 10.10	F.Y.B.Com G		F.Y.B.Com G	F.Y.B.Com G		
4	10.10 to 11.00	F.Y.B.Com E	F.Y.B.Com E	F.Y.B.Com E			F.Y.B.Com C
5	11.00 to 11.50			F.Y.B.Com C		F.Y.B.Com E	

No. Total Lecture=16

Asst.Prof.S.S.Ghongade

Sr.No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	7.30 to 8.20			F.Y.B.A B	S.Y.B.Com. C		
2	8.20 to 9.10	F.Y.B.A B	F.Y.B.A B	T.Y.B.Com. C&D		S.Y.B.Com. C	T.Y.B.Com. C&D
3	9.20 to 10.10		T.Y.B.Com. C&D	S.Y.B.Com. C	S.Y.B.Com. C	F.Y.B.Com. F&G	
4	10.10 to 11.00	F.Y.B.Com. D	F.Y.B.Com. D		F.Y.B.A B	F.Y.B.Com. D	F.Y.B.Com. D
5	11.00 to 11.50	F.Y.B.Com. F&G		F.Y.B.Com. F&G	F.Y.B.Com. F&G	T.Y.B.Com. C&D	

No. Total Lecture=20

K.T.S.P. Mandal's

Hutatma Rajguru Mahavidyalaya,

Rajgurunagar Tal.-Khed Dist.-Pune-410505

Department of Computer Science

Teching Plan

Academic Year -2017-18(Sem-I)

Sr.No.	Class	Subject Name	Teacher Name	Page No.
1	F.Y.B.Sc.(CS)	Problem solving using 'C'	Prof.P.Y.Jadhav	2
2	F.Y.B.Sc.(CS)	File Organization & Database Management System	Prof. A.S.Tanpure	4
3	F.Y.B.Sc.(CS)	Principles of analog Electronics	Prof.D.D.Kharmale	5
4	F.Y.B.Sc.(CS)	Principles of digital Electronics	Prof. A.P.Kulkarni	6
5	S.Y.B.Sc.(CS)	Data Structures Using 'C'	Prof.M.S.Salunke	7
6	S.Y.B.Sc.(CS)	Relational Database Management System	Prof. Y.D.Shinde	10
7	S.Y.B.Sc.(CS)	Digital System Hardware	Prof. A.P.Kulkarni	13
8	S.Y.B.Sc.(CS)	Analog systems	Prof. D.D.Kharmale	15
9	T.Y.B.Sc.(CS)	System Programming	Prof. Y.D.Shinde	17
10	T.Y.B.Sc.(CS)	Theoretical Computer Science	Prof.P.Y.Jadhav	20
11	T.Y.B.Sc.(CS)	Computer Networks-I	Prof. P.Y.Jadhav	23
12	T.Y.B.Sc.(CS)	Internet Programming-I	Prof. M.S.Salunke	27
13	T.Y.B.Sc.(CS)	Programming in Java-I	Prof. A.S.Tanpure	29
14	T.Y.B.Sc.(CS)	Object Oriented Software Engg.	Prof.M.S.Salunke	32

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Problem Solving Using 'C'

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	Chapter 8 Arrays 8.1 Array declaration, initialization R6 8.2 Types – one, two and multidimensional .	4
2	DECEMBER	8.3 Passing arrays to functions Chapter 9 Pointers 9.1 Pointer declaration, initialization 9.2 Dereferencing pointers 9.3 Pointer arithmetic 9.4 Pointer to pointer 9.5 Arrays and pointers 9.6 Functions and pointers – passing pointers to functions, function returning pointers 9.7 Dynamic memory allocation Chapter 10 Strings 10.1 Declaration and initialization, format specifiers 10.2 Standard library functions 10.3 Strings and pointers	3 6 3
3	JANUARY	10.4 Array of strings 10.5 Command Line Arguments Chapter 11 Structures and Unions 11.1 Creating structures R6(Ch 10) 11.2 Accessing structure members (dot Operator) 11.3 Structure initialization 11.4 Array of structures 11.5 Passing structures to functions 11.6 Nested structures 11.7 Pointers and structures 11.8 Unions	3 6

		11.9 Difference between structures and unions Chapter 12 File Handling 12.1 Streams 12.2 Types of Files	3
4	FEBRUARY	12.3 Operations on files 12.4 Random access to files Chapter 13 C Preprocessor 13.1 Format of Preprocessor directive 13.2 File Inclusion directive 13.3 Macro substitution, nested macro, argumented macro	1 2

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- File Organization and Fundamental of Databases

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
5	NOVEMBER	6.7 Modifications to Database 6.8 DDL commands with examples 6.9 SQL mechanisms for joining relations (inner joins, outer joins and their types) 6.10 Examples on SQL (case studies)	3
7	JANUARY	7 Relational Database Design 7.1 Pitfalls in Relational-Database Design (undesirable properties of a RDB design like repetition, inability to represent certain information), 7.2 Functional dependencies (Basic concepts, F+, Closure of an Attribute set, Concept of a Super Key and a primary key 16 (Algorithm to derive a Primary Key for a relation)	3 6 3
8	FEBRUARY	7.3 Concept of Decomposition 7.4 Desirable Properties of Decomposition (Lossless join & Dependency preservation) 7.5 Concept of Normalization 7.6 Normal forms (only definitions) 1NF, 2NF, 3NF, BCNF 7.7 Examples on Normalization	1 2

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Principles of Analog Electronics

SUBJECT TEACHER- Prof. S.R.Gadge

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	DECEMBER	Unit-5:UJT,FETs and Applications Symbol, types, construction, working principle, I-V characteristics, Specifications parameters of: Uni-Junction Transistor (UJT), Junction Field Effect Transistor (JFET), Metal Oxide Semiconductor FET (MOSFET), comparison of JFET, MOSFET and BJT Applications: JFET as voltage variable resistor, MOSFET as a switch.	12
2	JANUARY	Unit 6: Operational Amplifier Symbol, block diagram, Opamp characteristics, basic parameters (ideal and practical) such as input and output impedance, bandwidth, differential and common mode gain, CMRR, slew rate, Concept of virtual ground, concept of feedback.	12
3	FEBRUARY	Information about IC741 Opamp as inverting and non-inverting amplifier, voltage follower, adder, subtractor Opamp as a comparator and Schmitt trigger	8

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :FYBSc.(Computer Science)

Div:A

SUBJECT NAME- Principles of Digital Electronics

SUBJECT TEACHER- Prof.A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
5	NOVEMBER	Unit 5: Sequential Circuits Flip flops :RS using NAND/NOR, latch, clocked RS, JK, Master slave JK, D and T. Counters: Ripple Binary counter, up down counter.	4
6	DECEMBER	concept of modulus counters,Decade counter, Counters for high-speed applications (Synchronous counters) with timing diagrams. Unit 6: Operational Amplifier Symbol, block diagram, Opamp characteristics, basic parameters (ideal and practical) such as input and output impedance, bandwidth,	4 8
7	JANUARY	differential and common mode gain, CMRR, slew rate, Concept of virtual ground, concept of feedback.Shift registers: SISO, SIPO, PISO, PIPO shift registers, ring counter, universal 4-bit shift register and Applications. Unit 6: Logic Families Introduction to Integrated circuit technologies TTL, ECL, CMOS IC parameters: Logic levels, switching speed, propagation delay.	4

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Object Oriented Concepts & Programming in C++

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: 1. Object oriented concepts 1.1 Object oriented concepts 1.2 Features, advantages and Applications of OOPS	2
		UNIT- 2: Introduction to C++ 2.1 Data types, new operators and keywords, using namespace concept 2.2 Simple C++ Program 2.3 Introduction to Reference variables 2.4 Usage of 'this' pointer 2.5 Classes and Objects 2.6 Access specifiers 2.7 Defining Data members and Member functions 2.8 Array of objects	6
		UNIT- 3 : Function in C++ 3.1 Call by reference, Return by reference 3.2 Function overloading and default arguments 3.3 Inline function 3.4 Static class members 3.5 Friend Concept – Function, Class	8

2	DECEMBER	UNIT- 4 : Constructors and destructor 4.1 Types of constructors 4.2 Memory allocation (new and delete) 4.3 Destructor	4
		UNIT- 5: Operator overloading 5.1 Overloading Unary and Binary operators 5.2 Overloading using friend function 5.3 Type casting and Type conversion	4
		UNIT- 6: Inheritance 6.1 Types of inheritance with examples 6.2 Constructors and destructor in derived classes	8
3	JANUARY	UNIT- 6: Inheritance 6.3 Virtual base classes, Virtual functions and Pure virtual function 6.4 Abstract base classes	2
		UNIT-7. Managing Input and Output using C++ [4] 7.1 Managing console I/O 7.2 C++ stream classes 7.3 Formatted and unformatted console I/O 7.4 Usage of manipulators	6
		UNIT- 8: 8. Working with files 8.1 File operations – Text files, Binary files 8.2 File stream class and methods 8.3 File updation with random access 8.4 Overloading insertion and extraction operator	6
		UNIT-9: 9. Templates 9.1 Introduction to templates 9.2 Class templates, function templates and overloading of function templates	2

4	FEBRUARY	9.3 Templates with multiple parameters UNIT 10. Exception Handling in C++ 10.1 try, catch and throw primitives	2 2
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Software Engineering

SUBJECT TEACHER- Prof.Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	1. System Concepts (R1 : Chapter 1 & R3 : Chapter 1) 1.1 System Definition 1.2 Characteristics of a System : Organization, Subsystem, Interaction, Interdependence, Integration, Central objective, Standards, Black-box 1.3 Elements of a system : Outputs, Inputs, Processor(s), Control, Feedback, Environment, Boundaries, Interface. 1.4 Types of Systems : Physical & Abstract Systems, Open & Closed Systems, Computer-based Systems (MIS : Management Information System & DSS : Decision Support System)	5
		2. Software and Software Engineering (R2 : Chapter 1) 2.1 The Nature of Software 2.1.1 Defining Software 2.1.2 Software Application Domains 2.1.3 Legacy Software 2.2 Software Engineering 2.3 The Software Process 2.4 Software Engineering Practice 2.4.1 The Essence of Practice 2.4.2 General Principles 2.5 Software Myths	5
		3. System Development Life Cycle (SDLC) (R3 : Chapter 1) 3.1 Introduction	6

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- 8051 μ c Architecture Interfacing & Programming
SUBJECT TEACHER- Prof.A.P.Kulkarni

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: Basics of Microcontroller & Intel 8051 architecture Introduction to microcontrollers, difference in controller and processor. Architecture of 8051, Internal block diagram, Internal RAM organization, SFRS, pin diagram of 8051, I/O ports and specifications of I/O Ports, External Memory Interface.	12
		UNIT-2: Programming model of 8051 Instruction classification, Instruction set, Addressing Modes: Immediate, register, direct, indirect and relative, assembler directives (org, end),	4
2	DECEMBER	features with example, I/O Bit & Byte programming using assembly language for LED and seven segment display (SSD) interfacing. Introduction to 8051 programming in C.	8
		UNIT 3: Timer / counter, serial communication, Interrupts & Programs using 'C' TMOD, TCON, SCON, SBUF, PCON Registers, Timer modes, programming for time delay using mode 1 and mode 2. Introduction to interrupt ,Interrupt types and their vector addresses, Interrupt enable register and interrupt priority register(IE,IP),	8

3	JANUARY	<p>Synchronous and asynchronous serial communication , Programming serial port without interrupt, Use of timer to select baud rate for serial communication.</p> <p>UNIT- 4: Interfacing, programming using 'C' & Applications of 8051</p> <p>Interfacing ADC, DAC, LCD, stepper motor. Study of advance micro controllers (ARM & PIC): Features and applications</p>	<p>4</p> <p>12</p>
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DEPARTMENT OF COMPUTER SCIENCE

TEACHING PLAN

ACADEMIC YEAR-2017-2018

SEM-II

Class: :SYBSc.(Computer Science)

Div:A

SUBJECT NAME- Communicaton Principles

SUBJECT TEACHER- Prof.S.R.Gadge

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT-1: Introduction to Electronic Communication Importance of Communication, Elements of Communication system, Electromagnetic spectrum, types of communication, serial communication, Concepts of communication system: Signal bandwidth, channel bandwidth, data rate, baud rate, Nyquist theorem, Signal to noise ratio, and channel capacity, error handling code- Hamming code, Shannon theorem, and concept of companding.	12
		UNIT-2: Modulation and Demodulation Introduction to concepts of modulation and demodulation. Modulation techniques: Analog modulation: Amplitude, Phase and Frequency modulation, Circuit diagram and working of transistorized amplitude modulator and diode demodulator. Equation of amplitude modulated wave, modulation index and frequency spectrum. (Phase and frequency modulation circuits are not expected).	4
2	DECEMBER	Digital modulation: Pulse Amplitude Modulation (PAM), Pulse Code Modulation (PCM) Block diagram and working, delta modulation circuit, MODEM - concept of ASK, FSK, BPSK, QPSK and block diagram of MODEM using FSK.	10

		UNIT-3: Multiplexing and Multiple Access Techniques Study of multiplexing and multiple access techniques: Space division multiplexing ,Time division multiplexing , Frequency Division Multiplexing	6
3	JANUARY	Code division multiplexing, spread spectrum techniques: DSSS, FHSS, Introduction to multiple access and corresponding access types: FDMA , TDMA , CDMA. UNIT- 4: Wireless Communication system Introduction to wireless communication system. Need of wireless communication systems. Antenna – Introduction, Need, working Principle, Parameters of antenna: Gain,	8 8
4	FEBRUARY	directivity, Radiation pattern, Beam width, Bandwidth, front to back ratio (FBR).	2

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Operating Systems

SUBJECT TEACHER- Prof. Y.D.Shinde

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1:Introduction 1.1 Operating System Structure – Simple structure, Layered approach, Micro kernels, Modules 1.2 Virtual Machines – Introduction, Benefits 1.3 System Boot	2
		UNIT- 2:Process Management 2.1 Process Concept – The process, Process states, Process control block. 2.2 Process Scheduling – Scheduling queues, Schedulers, context switch 2.3 Operations on Process – Process creation with program using fork(), Process termination 2.4 Interprocess Communication – Shared memory system, Message passing systems.	4
		UNIT- 3: Multithreaded Programming 3.1 Overview 3.2 Multithreading Models	2
2	DECEMBER	4. Process Scheduling 4.1 Basic Concept – CPU-I/O burst cycle, CPU scheduler, Preemptive scheduling, Dispatcher 4.2 Scheduling Criteria 4.3 Scheduling Algorithms – FCFS, SJF, Priority scheduling, Round-robin scheduling, Multiple queue scheduling, Multilevel feedback queue scheduling 4.4 Thread Scheduling	8

3	JANUARY	UNIT- 5: Process Synchronization 5.1 Background 5.2 Critical Section Problem 5.3 Semaphores: Usage, Implementation 5.4 Classic Problems of Synchronization – The bounded buffer problem, The reader writer problem, The dining philosopher problem 6. Deadlocks 6.1 System model 6.2 Deadlock Characterization – Necessary conditions, Resource allocation graph 6.3 Deadlock Prevention 6.4 Deadlock Avoidance - Safe state, Resource allocation graph algorithm, Banker's Algorithm 6.5 Deadlock Detection 6.6 Recovery from Deadlock – Process termination, Resource preemption	6
			8
		UNIT- 7:Memory Management 7.1. Background – Basic hardware, Address binding, Logical versus physical address space, Dynamic loading, Dynamic linking and shared libraries 7.2 Swapping 7.3 Contiguous Memory Allocation – Memory mapping and protection, Memory allocation, Fragmentation 7.4 Paging – Basic Method, Hardware support, Protection, Shared Pages 7.5 Segmentation – Basic concept, Hardware 7.6 Virtual Memory Management – Background, Demand paging, Performance of demand paging, Page replacement – FIFO, OPT, LRU, Second chance page replacement	2
			9

		UNIT- 8:File System 8.1 File concept 8.2 Access Methods – Sequential, Direct, Other access methods 8.3 Directory and Disk Structure – Storage structure, Directory overview, Single level directory, Two level directory, Tree structure directory, Acyclic graph directory, General graph directory 8.4 Allocation Methods – Contiguous allocation, Linked allocation, Indexed allocation 8.5 Free Space Management – Bit vector, Linked list, Grouping, Counting, Space maps	7
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Compiler Construction

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: Introduction 1.1 Definition of Compiler, Aspects of compilation. 1.2 The structure of Compiler. 1.3 Phases of Compiler – Lexical Analysis, Syntax Analysis, Semantic Analysis, Intermediate Code generation, code optimization, code generation. 1.4 Error Handling 1.5 Introduction to one pass & Multipass compilers, cross compiler, Bootstrapping.	5
		UNIT- 2: Lexical Analysis (Scanner) 2.1 Review of Finite automata as a lexical analyzer, 2.2 Applications of Regular Expressions and Finite Automata (lexical analyzer, searching using RE), Input buffering, Recognition of tokens 2.3 LEX: A Lexical analyzer generator (Simple Lex Program)	5
		UNIT- 3: Syntax Analysis (Parser) 3.1 Definition , Types of Parsers 3.2 Top-Down Parser – 3.2.1 Top-Down Parsing with Backtracking: Method & Problems 3.2.2 Drawbacks of Top-Down parsing with backtracking,	6

2	DECEMBER	<p>UNIT- 3:Syntax Analysis (Parser) 3.2.3 Elimination of Left Recursion(direct & indirect) 3.2.4 Need for Left Factoring & examples 3.3 Recursive Descent Parsing : Definition 3.3.1 Implementation of Recursive Descent Parser Using Recursive Procedures 3.4 Predictive [LL(1)]Parser(Definition, Model) 3.4.1 Implementation of Predictive Parser[LL(1)] 3.4.2 FIRST & FOLLOW 3.4.3 Construction of LL(1) Parsing Table 3.4.4 Parsing of a String using LL(1) Table 3.5 Bottom-Up Parsers 3.6 Operator Precedence Parser - Basic Concepts 3.6.1 Operator Precedence Relations form Associativity & Precedence 3.6.2 Operator Precedence Grammar 3.6.3 Algorithm for LEADING & TRAILING(with ex.) 3.6.4 Algorithm for Operator Precedence Parsing (with ex.) 3.6.5 Precedence Functions 3.7 Shift Reduce Parser 3.7.1 Reduction, Handle, Handle Pruning 3.7.2 Stack Implementation of Shift Reduce Parser (with examples) 3.8 LR Parser 3.8.1 Model 3.8.2 Types [SLR(1), Canonical LR, LALR] Method & examples. 3.9 YACC (from Book 3) –program sections, simple YACC program for expression evaluation</p> <p>UNIT- 4:Syntax Directed Definition 4.1 Syntax Directed Definitions(SDD) 4.1.1 Inherited & Synthesized Attributes 4.1.2 Evaluating an SDD at the nodes of a Parse Tree, Example 4.2 Evaluation Orders for SDD's</p>	<p>14</p> <p>2</p> <p>6</p>
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3	JANUARY	<p>UNIT- 4:Syntax Directed Definition 4.2.1 Dependency Graph 4.2.2 Ordering the Evaluation of Attributes 4.2.3 S-Attributed Definition 4.2.4 L-Attributed Definition 4.3 Application of SDT 4.3.1 Construction of syntax trees, 4.3.2 The Structure of a Type 4. 4 Translation Schemes 4.4.1 Definition, Postfix Translation Scheme</p>	
		<p>UNIT- 5: Memory Allocation 5.1 Memory allocation – static and dynamic memory allocation, 5.2 Memory allocation in block structure languages, Array allocation and access.</p>	2
		<p>UNIT- 6: Code Generation and Optimization 6.1 Compilation of expression – 6.1.1 Concepts of operand descriptors and register descriptors with example. 6.1.2 Intermediate code for expressions – postfix notations, 6.1.3 triples and quadruples, expression trees. 6.2 Code Optimization – Optimizing transformations – compile time evaluation, elimination of common sub expressions, dead code elimination, frequency reduction, strength reduction 6.3 Three address code 6.3.1. DAG for Three address code 6.3.2 The Value-number method for constructing DAG's. 6.4 Definition of basic block, Basic blocks And flow graphs 6.5 Directed acyclic graph (DAG) representation of basic block 6.6 Issues in design of code generator</p>	8

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Computer Networks-II

SUBJECT TEACHER- Prof.P.Y.Jadhav

SR · N O	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	<p>UNIT- 1:Wired LANs 1.1 IEEE Standards Data Link Layer, Physical Layer 1.2 Standard Ethernet MAC Sublayer – Frame Format, Frame Length, Addressing, Access Method 1.3 Physical Layer – Encoding and Decoding, 10Base5, 10Base2, 10Base-T, 10Base-F, 1.4 Changes In The Standard – Bridged Ethernet, Switched Ethernet, Full Duplex Ethernet 1.5 Fast Ethernet – Goals, MAC Sublayer,Topology, Implementation 1.6 Gigabit Ethernet – goals, MAC Sublayer, Topology, Implementation 1.7 Ten-Gigabit Ethernet – goals, MAC Sublayer, Physical Layer 1.8 Backbone Networks Bus Backbone, Star Backbone, Connecting Remote LANs 1.9 Virtual LANs Membership, Configuration, Communication between Switches, IEEE standards Advantages</p> <p>UNIT- 1:Wireless LAN 2.1 IEEE 802.11 Architecture – Basic Service Set, Extended Service Set, Station Types</p>	<p style="text-align: center;">9</p> <p style="text-align: center;">2</p>

		<p>2.2 Bluetooth Architecture – Piconet, scatternet</p> <p>UNIT- 3:The Network Layer</p> <p>3.1 Design Issues Store-and-forward packet switching, Services Provided to the Transport Layer, Implementation of Connectionless Service, Implementation of Connection Oriented Service, Comparison of Virtual Circuit and Datagram subnets</p> <p>3.2 Logical Addressing IPV4 Addresses – Address Space, Notations, Classful Addressing, Subnetting, Supernetting, Classless Addressing, Network Address Translation(NAT), (Enough problems should be covered on Addressing),</p> <p>3.3 IPV4 Protocol Datagram Format, Fragmentation, Checksum, Options</p>	5
2	DECEMBER	<p>UNIT- 3:The Network Layer</p> <p>3.4 Routing Properties of routing algorithm, Comparison of Adaptive and Non- Adaptive Routing Algorithms</p> <p>3.5 Congestion Control – Definition, Factors of Congestion, Difference between congestion control and flow control, General Principles of Congestion Control, Congestion Prevention Policies</p> <p>3.6 Network Layer Devices –Routers</p> <p>UNIT- 4: Address Mapping</p> <p>4.1 Protocol(ARP)-Cache Memory, Packet Format, Encapsulation, Operation, Four Different Cases, Proxy ARP, RARP , BOOTP, DHCP – Static Address Allocation, Dynamic Address Allocation, Manual and automatic Configuration</p> <p>5. The Transport Layer</p> <p>5.1 Process-to-Process Delivery Client Server Paradigm, Multiplexing and De-multiplexing, Connectionless Vs Connection-Oriented Service, Reliable</p>	<p>5</p> <p>4</p> <p>6</p>

		<p>7.2 Message confidentiality – Confidentiality with Asymmetric-Key Cryptography, Confidentiality with Symmetric-Key Cryptography</p> <p>7.3 Cryptography Encryption Model, Substitution Cipher and Transposition Cipher (Problems should be covered.)</p> <p>7.4 Two Fundamental Cryptographic Principles</p> <p>7.5 Communication Security Firewalls</p> <p>7.6 Web Security Threats, Secure Naming, DNS Spoofing, Secure DNS, Self Certifying names</p> <p>7.7 Mobile Code Security Java Applet Security, Activex, JavaScript, Viruses</p> <p>7.8 Social Issues Privacy, Anonymous Remailers, Freedom of Speech, Stegnography, Copyright.</p>	
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Internet Programming-II

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: Web Techniques 1.1 Variables 1.2 Server information 1.3 Processing forms 1.4 Setting response headers 1.5 Maintaining state 1.6 SSL	10
		UNIT- 2: Handling email with php 2.1 Email background 2.2 Internet mail protocol 2.3 Structure of an email message 2.4 Sending email with php 2.5 Email attachments.	6
2	DECEMBER	UNIT- 2: Handling email with php 2.6 Email id validation and verification 2.7 PHP error handling.	2
		UNIT- 3:PHP framework 3.1 Introduction to PHP framework. 3.2 Features, Applications. 3.3 One example like JOOMLA,DRUPAL.	4
		4. XML 4.1What is XML? 4.2 XML document Structure 4.3 PHP and XML 4.4 XML parser 4.5 The document object model 4.6 The simple XML extension 4.7 Changing a value with simple XML	8

DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Programming inJava-II

SUBJECT TEACHER- Prof.A.S.Tanpure

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: Collection 1.1 Introduction to the Collection framework 1.2 List – ArrayList, LinkedList and Vector, Stack, Queue 1.3 Set - HashSet, TreeSet, and LinkedHashSet 1.4 Map – HashMap, LinkedHashMap, Hashtable and TreeMap 1.5 Interfaces such as Comparator, Iterator, ListIterator, Enumeration	6
		UNIT- 2: Database Programming 2.1 The design of jdbc, jdbc configuration 2.2 Types of drivers 2.3 Executing sql statements, query execution 2.4 Scrollable and updatable result sets 2.5 Metadata – DatabaseMetadata, ResultSetMetadata 2.6 Transactions – commit(), rollback(), SavePoint (Database : PostgreSQL)	10

		InetAddress, URL, URLConnection class 6.3 SocketServer and Socket class 6.4 Creating a Socket to a remote host on a port (creating TCP client and server) 6.5 Simple Socket Program Example	
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DEPARTMENT OF COMPUTER SCIENCE
TEACHING PLAN
ACADEMIC YEAR-2017-2018
SEM-II

Class: :TYBSc.(Computer Science)

Div:A

SUBJECT NAME- Computer Graphics

SUBJECT TEACHER- Prof.M.S.Salunke

SR. NO	MONTH	NAME OF TOPIC	ALLOCATED LECTURES
1	NOVEMBER	UNIT- 1: Introduction to Computer graphics 1. 1 Introduction to computer graphics & graphics systems 1.2 Components of Computer Graphics Representation, Presentation , Interaction and Transformations 1.3 Applications of Computer Graphics 1.3 Pixel/Point ,Raster v/s Vector ,RGB color model, intensity 1.4 Programming essentials – event driven programming. OpenGL library	4
		UNIT- 2: Input devices and Interaction tasks 2.1 Logical Interaction – Locator, valuator , pick and choice; 2.2 Physical devices used for interaction – keyboard, mouse, trackball,spaceball, tablets, light pen, joy stick, touch panel, data glove; 2.4 Keyboard , Mouse interaction in OpenGL 2.5 Graphical User Interfaces- cursors , radio buttons, scroll bars, menus, icons 2.6 Implementing GUI in open GL	4

		<p>UNIT- 7: 3D transformation & viewing 7.1</p> <p>3D transformations: translation, rotation, scaling & other transformations; 7.2 Three dimensional viewing, Parallel and Perspective projections, 7.3 View Volumes and General Projection Transformations. 7.4 3 D clipping</p> <p>UNIT- 8: Hidden surfaces Elimination</p> <p>8.1 Depth comparison, A-buffer algorithm, Back face detection; Depth-Buffer</p> <p>8.2 Scan-line Method - BSP tree method, the Painter's algorithm, Area-subdivision algorithm;</p>	<p>6</p> <p>4</p>
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खेड तालुका शिक्षण प्रसारक मंडळाचे

हुतात्मा राजगुरू महाविद्यालय



राजगुरूनगर, ता. खेड, जि. पुणे ४१०५०५

भूगोल विभाग

अध्यापन नियोजन आराखडा

शैक्षणिक वर्ष २०१७ – २०१८ करिता

अ.नं.	वर्ग	विषयाचे नाव	एकुण तुकड्या	विषय शिक्षक	पान नं.
१.	एफ. वाय. बी. ए.	भूरूपशास्त्राची मूलतत्त्वे (जी १)	४	प्रा. डी. डी. मुळूक प्रा. एम. एल. मुळूक प्रा. मोढवे जी. पी.	२
२	एफ. वाय. बी. कॉम.	वाणिज्य भूगोल	१	प्रा. डी. एम. मारकड	४
३	एस. वाय. बी. ए.	आपत्ती व्यवस्थापनाचा भूगोल (जी २)	२	प्रा. डी. एम. मारकड आणि प्रा. मोढवे जी. पी.	६
४	एस. वाय. बी. ए.	पर्यटन भूगोल (एस १)	१	प्रा. डी. डी. मुळूक	८
५	एस. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस २)	१	प्रा. डी. एम. मारकड प्रा. एम. एल. मुळूक प्रा. मोढवे जी. पी.	१२
६	टी. वाय. बी. ए.	भारताचा भूगोल (जी ३)	१	प्रा. डी. एम. मारकड प्रा. मुळूक डी. डी. प्रा. मोढवे जी. पी.	१४
७	टी. वाय. बी. ए.	लोकसंख्या आणि वस्ती भूगोल (एस ३)	१	प्रा. एम. एल. मुळूक	१६
८	टी. वाय. बी. ए.	प्रात्यक्षिक भूगोल (एस ४)	१	प्रा. डी. डी. मुळूक प्रा. एम. एल. मुळूक प्रा. मोढवे जी. पी.	१८

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग—प्रथम वर्ष कला (FYBA)

विषय —भूगोल (भूरूपशास्त्राची मूलतत्वे) जी १

विषय शिक्षकांचे नाव — प्रा. दिलीप मुळूक, प्रा. मच्छिंद्र मुळूक आणि प्रा. मोढवे जी. पी.

तुकडी — अ, ब, क, ड

महिना	घटक	उपघटक	प्रस्तावित तासिका
प्रथम सत्र			
जून २०१७	भूरूपशास्त्राची प्रस्तावना	अ) प्राकृतिक भूगोलाची प्रस्तावना आणि शाखा ब) भूरूपशास्त्र —व्याख्या, स्वरूप आणि व्याप्ती	८
जुलै/ऑगस्ट २०१७	पृथ्वी — मूलभूत संकल्पना	अ) पृथ्वीचा आकार आणि आकारमान, त्रिज्या, व्यास आणि परीघ, अक्षांश आणि अक्षवृत्ते ब) स्थानिकवेळ, प्रमाणवेळ, वेळप्रभाग, आंतरराष्ट्रीय वाररेषा	६
ऑगस्ट २०१७	पृथ्वी	अ) पृथ्वी—पृथ्वीचे अंतरंग—संघटन आणि रचना ब) खंड आणि महासागरांची निर्मिती १. वेगनगरचा खंडवहन सिध्दांत २. तबकडी भूविवर्तनकी सिध्दांत ३. सागरतळ पसरणीचा सिध्दांत	५ ६
सप्टेंबर २०१७	खडक	अ) खडक— खडकांची व्याख्या आणि निर्मिती ब) खडकांचे प्रकार १. अग्निजन्य/अग्निज खडक २. स्तरित / गाळाचे / जलजन्य खडक ३. रूपांतरीत/विकृत खडक	५ ५
सप्टेंबर २०१७	भूप्रक्षोभक हालचाली	अ) भूगर्भीय हालचाली — व्याख्या आणि कारणे ब) भूप्रक्षोभक हालचालींचे प्रकार १. संध/मंद हालचाली वलीकरण प्रक्रिया प्रस्तरभंग २. शीघ्र हालचाली ज्वालामुखी भूकंप	५ ५
द्वितीय सत्र			

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (FYBCOM)

विषय — भूगोल (वाणिज्य भूगोल)

प्रा. डी. एम. मारकड

महिना	घटक	उपघटक	प्रस्तावित तासिका
प्रथम सत्र			
जुन/जुलै २०१७	व्यापारी भूगोल	१. व्याख्या, स्वरूप आणि व्याप्ती २. व्यापारी भूगोलाच्या अभ्यासपद्धती	८
जुलै/ऑगस्ट २०१७	भौगोलिक पर्यावरण व वाणिज्य	१. मानवाचे आर्थिक व्यवसाय पर्यावरणाचे प्रकार आणि घटक अ) प्राकृतिक पर्यावरण ब) सांस्कृतिक पर्यावरण २. निसर्गवाद आणि शक्यतावाद	६
ऑगस्ट/ सप्टेंबर २०१७	साधनसंपदा	अ) अर्थ, स्वरूप आणि साधनसंपदाचे उपयोग ब) जंगलाचे प्रकार, वैशिष्ट्ये, वितरण आणि आर्थिक महत्त्व क) अपारंपारिक उर्जासाधने — सौरउर्जा, पवनउर्जा आणि भरती उर्जा ड) शेती — भारतीय अर्थव्यवस्थेतील शेतीची भूमिका इ) शेतीचे प्रकार — उदनिवाहक शेती, व्यापारी शेती, स्थलांतरीत शेती, मळयाची शेती, मंडई/बागायती शेती	५ ६
सप्टेंबर/ ऑक्टोबर २०१७	लोकसंख्या	अ) संकल्पना — पर्याप्त, न्यून, आणि अतिरिक्त लोकसंख्या ब) भारतीय लोकसंख्येची वैशिष्ट्ये	५ ५
डिसेंबर २०१७	उद्योगधंदे	अ) आर्थिक विकासामध्ये उद्योगधंद्यांची भूमिका ब) उद्योगधंद्याच्या स्थाननिश्चितीवर परिणाम करणारे घटक क) वेबरचा सिद्धांत ड) भारतातील प्रमुख उद्योगधंदे १. लोहपोलाद उद्योग २. सुती वस्त्र उद्योग ३. अ‍ॅटोमोबाईल उद्योग ४. माहिती तंत्रज्ञान उद्योग आणि महाराष्ट्र शासनाची धोरणे	५ ५

जानेवारी २०१८	व्यापार व वाहतूक	अ) आंतरराष्ट्रीय व्यापारावर परिणाम करणारे भौगोलिक घटक ब) भारताचा आंतरराष्ट्रीय व्यापार क) वाहतूकीचे मार्ग ड) आर्थिक विकासातील वाहतूकीचे मार्ग इ) वाहतूक मार्गांचे तुलनात्मक महत्त्व	
फेब्रुवारी २०१८	पर्यटन	अ) पर्यटनावर परिणाम करणारे भौगोलिक घटक ब) भारतातील पर्यटन उद्योग क) भारतातील देशांतर्गत व आंतरराष्ट्रीय पर्यटन ड) महाराष्ट्रातील कृषी पर्यटन इ) नजीकच्या स्थलांना क्षेत्रीय भेटी	
मार्च २०१८	संख्याशास्त्रीय पद्धती	अ) आलेख १) रेषाळेख २) स्तंभालेख ब) नकाशे १) सममूल्य पद्धती २) छाया पद्धती क) विभाजीत वर्तूळ पद्धती	

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल (आपत्ती व्यवस्थापनाचा भूगोल) जी २

प्रा. डी. एम. मारकड / प्रा. मोढवे जी. पी.

तुकडी — अ आणि ब

महिना	घटक	उपघटक	अभ्यास घटक	प्रस्तावित तासिका
जून/जुलै २०१७	आपत्ती व संकट यांचा परिचय	व्याख्या आणि प्रकार	१) आपत्तीची व्याख्या व अर्थ, २) आपत्ती आणि भौगोलिक परिस्थिती यांचा सहसंबंध, ३) आपत्तींचे वर्गीकरण	१०
जुलै/ऑगस्ट २०१७	आपत्ती व्यवस्थापनाच्या पायाभूत संकल्पना	संज्ञा आणि संकल्पना	१) व्यवस्थापन संकल्पना २) आपत्ती व्यवस्थापनाची ध्येये आणि उद्दिष्ट्ये ३) आपत्तीपूर्व व्यवस्थापन ४) आपत्ती नंतरचे व्यवस्थापन	१२
ऑगस्ट/ सप्टेंबर २०१७	आपत्ती व्यवस्थापन संरचना	रचनात्मक आणि अरचनात्मक संरचना	१) आपत्ती व्यवस्थापन संरचनेच्या पायऱ्या — पूर्वतयारी, प्रतिसाद, पुनर्प्राप्ती, उपशमन, पुनर्वसन २) शासकीय पातळीवरील प्रमाणित कार्यपद्धती ३) आपत्ती व्यवस्थापनात प्रसार माध्यमांची भूमिका	१३
सप्टेंबर/ ऑक्टोबर २०१७	हवामान विषय आपत्ती आणि त्यांचे मूल्यमापन	कारणे, परिणाम, क्षेत्र आणि व्यवस्थापन	१) आवर्त एक आपत्ती २) दुष्काळ एक आपत्ती ३) पूर एक आपत्ती	१०
डिसेंबर २०१७	भूगर्भशास्त्रीय व भूरूपशास्त्रीय आपत्ती आणि त्यांचे व्यवस्थापन	कारणे, परिणाम, क्षेत्र आणि व्यवस्थापन	१) भूकंप एक आपत्ती २) भूस्खलन एक आपत्ती ३) त्सुनामी एक आपत्ती	१०
जानेवारी २०१८	मानवनिर्मित आपत्ती आणि त्यांचे व्यवस्थापन	कल, प्रकार, क्षेत्र, कारणे, परिणाम, आणि	१) निर्वनीकरण २) वणवा एक आपत्ती ३) मृदा घूप	१२

		उपाययोजना	४) साधनसंपत्तीची अतिलूट	
फेब्रुवारी २०१८	वैश्विक समस्या आणि हालचाली	कारणे, परिणाम आणि संधारण	१) जागतिक तापमानवाढ २) ओझोन अपक्षय ३) आम्लपर्जन्य	१०
मार्च २०१८	आपत्ती व्यवस्थापन नमुना अभ्यास	भारतीय आणि जागतिक आपत्तीचे व्यवस्थापन	१) हिंदी महासागरातील त्सुनामी २००४ २) केदारनाथ ढगफुटी २०१३ ३) फुकुशिमा आण्विक आपत्ती २०११ ४) महाराष्ट्रातील गारपीट २०१४	१३

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल एस १ (पर्यटन भूगोल)

प्रा. डी. डी. मुळूक (विशेष स्तर)

प्रकरण	घटक	उपघटक	अभ्यास घटक	तासिका
जुन/ जुलै २०१७	पर्यटन भूगोलाचा परिचय	अ) प्रस्तावना आणि व्याख्या ब) पर्यटन भूगोलाचे स्वरूप क) पर्यटन भूगोलाची व्याप्ती ड) पर्यटनाचे महत्त्व	१) पर्यटन भूगोल — प्रस्तावना २) व्याख्या — पर्यटन आणि पर्यटक १) वैशिष्ट्यपूर्ण स्वरूप २) वैविध्यपूर्ण स्वरूप ४) करमणूक प्रधान स्वरूप ५) गतिशील स्वरूप ६) आंतरविद्याशाखीय स्वरूप ७) अनुत्पादक स्वरूप ८) हंगामी स्वरूप १) पर्यटन मानवाची मूलभूत गरज २) वाहतूक आणि पर्यटन ३) नैसर्गिक पर्यावरण आणि पर्यटन ४) संस्कृती आणि पर्यटन ५) धार्मिक घटक आणि पर्यटन ६) पर्यटन उत्पादने १) पर्यटन आणि भूगोल यांचा सहसंबंध २) पर्यटनाचे महत्त्व	१०
जुलै/ ऑगस्ट २०१७	पर्यटन संकल्पना आणि वर्गीकरण	अ) पर्यटनच्या संकल्पना ब) पर्यटनाचे वर्गीकरण १) राष्ट्रीयत्वाच्या अधारे	१) भू पर्यटन २) कृषी पर्यटन ३) वारसा पर्यटन ४) साहसी/ धाडसी पर्यटन ५) धार्मिक पर्यटन ६) आरोग्य पर्यटन ७) क्रीडा पर्यटन ८) आपत्ती पर्यटन १) आंतरराष्ट्रीय पर्यटन २) राष्ट्रीय पर्यटन ३) प्रादेशिक पर्यटन	१५

		<p>२) प्रवासाचा वेळ</p> <p>३) प्रवासाचे अंतर</p> <p>४) पर्यटकांच्या संख्येवर अधारीत</p> <p>५) पर्यटनाच्या उद्देश्यावरून अधारीत</p> <p>६) पर्यटनाचा दृष्टीकोन</p>	<p>४) स्थानिक पर्यटन</p> <p>१) दीर्घकालीक पर्यटन</p> <p>२) अल्पकालीक पर्यटन</p> <p>३) दैनिक पर्यटन</p> <p>१) खंडीय पर्यटन</p> <p>२) देशातर्गत पर्यटन</p> <p>३) राज्यातर्गत पर्यटन</p> <p>४) स्थानिक पर्यटन</p> <p>१) समूह पर्यटन</p> <p>२) कुटुंब पर्यटन</p> <p>३) वैयक्तिक पर्यटन</p> <p>१) धार्मिक पर्यटन</p> <p>२) करमणूक पर्यटन</p> <p>३) वारसापर्यटन</p> <p>४) साहसी/धाडसी पर्यटन</p> <p>५) नैसर्गिक पर्यटन</p> <p>६) आरोग्य पर्यटन</p> <p>७) क्रीडा पर्यटन</p> <p>१) इको टुरिझम</p>	
ऑगस्ट सप्टेंबर २०१७	पर्यटनाच्या क्षमतेचे मूल्यमापन— १	<p>प्राकृतिक घटक</p> <p>अ) भूउठाव</p> <p>ब) जलाशये</p> <p>क) हवामान</p> <p>ड) जंगले</p>	<p>१) पर्वतीय प्रदेश</p> <p>२) पठारी प्रदेश</p> <p>३) मैदानी प्रदेश</p> <p>४) सागरी पुळणे</p> <p>५) नदी उगमस्थाने</p> <p>६) धबधबे</p> <p>१) सरोवरे आणि धरणे</p> <p>२) गरम पाण्याचे झरे</p> <p>३) उष्णोदके/गेसर्स</p> <p>४) नद्यांचे संगम</p> <p>१) थंड हवेची ठिकाणे</p> <p>२) हिमवर्षावाची ठिकाणे</p> <p>३) पावसाळी प्रदेश</p> <p>४) सौरस्नानाची ठिकाणे</p> <p>१) राष्ट्रीय उद्याने</p> <p>२) अभयारण्ये</p> <p>(भारतातील उदाहरणासह)</p>	१०
सप्टेंबर	पर्यटनाच्या	सामाजिक — सांस्कृतिक	१) धार्मिक ठिकाणे/धर्मस्थळे —	१०

ऑक्टोबर २०१७	क्षमतेचे मूल्यमापन— २	घटक अ) धार्मिक घटक ब) ऐतिहासिक घटक क) सांस्कृतिक घटक	सर्व धर्मांची २) ऐतिहासिक ठिकाणे ३) सांस्कृतिक ठिकाणे ४) क्रीडा स्थळे ५) सण व उत्सव ६) वारली चित्रकला ७) आदर्श खेडी/गावे (भारतातील उदाहरणासह)	
डिसेंबर २०१७	वाहतूक आणि दळणवळण	भौतिक साधनसंपत्ती आणि पूरक सुविधा	१) रस्ते वाहतूक २) रेल्वे वाहतूक ३) जल वाहतूक ४) हवाई वाहतूक ५) अवकाशीय वाहतूक १) पर्यटक मार्गदर्शक/गाईड २) टेलिफोन/मोबाईल/दूरदर्शन ३) इंटरनेट ४) इलेक्ट्रॉनिक आणि प्रिटींग मिडीया ५) प्रवासी वाहतूक आणि पर्यटन संस्था	१०
डिसेंबर २०१७ जानेवारी २०१८	निवासस्थाने	निवासस्थानांचे प्रकार	१) खाजगी हॉटेल २) मोटेल ३) पथिकाश्रम ४) सरकारी निवासस्थाने — रेस्ट हाऊस, गेस्ट हाऊस, सर्कीट हाऊस ५) युथ होस्टेल ६) तंबू ७) बेड आणि ब्रेकफास्ट ८) रेल यात्री भवन ९) हाऊसबोट १०) धर्मशाळा ११) खाजगी निवासस्थाने	१०
जानेवारी २०१८ फेब्रुवारी २०१८	पर्यटनाचे परीणाम /संघात	अ) पर्यावरणीय परीणाम	१) मृदा धूप २) प्रदूषणे — भूप्रदूषण, जलप्रदूषण, वायुप्रदूषण ३) वनांचा न्हास ४) पशू आणि पक्षांचा न्हास	१२

		ब) आर्थिक परीणाम क) सामाजिक आणि सांस्कृतिक परीणाम	१) पर्यटन एक आर्थिक क्रिया २) परदेशी चलनावरील परिणाम ३) रोजगार निर्मिती ४) जमिनीच्या किमतीतील वाढ ५) व्यापार वृद्धी ६) सरकारी महसुलातील वाढ ७) साधनसंपत्तीचा विकास ८) गुणात्मक परिणाम १) नववसाहतवाद २) गुन्हेगारी/फसवेगिरी ३) धार्मिक परिणाम ४) भाषेवरील परिणाम ५) आरोग्यावरील परिणाम ६) पारंपरिककला/हस्तकलांवरील परीणाम	
फेब्रुवारी २०१८ मार्च २०१८	प्रमुख पर्यटन स्थळांचा अभ्यास	अ) थंड हवेची ठिकाणे ब) पुळणे क) ऐतिहासिक स्थळे ड) धार्मिकस्थळे इ) धरणे/जलाशये	१) मनाली (हिमाचल प्रदेश) २) महाबळेश्वर (महाराष्ट्र) १) मरिना बीच (चेन्नई) २) दिवेआगार (रायगड) १) कोणार्कचे सूर्यमंदीर (ओडीशा) २) रायगड किल्ला (महाराष्ट्र) १) वैष्णोदेवी (जम्मू) २) शेगाव (बुलढाणा) १) सरदार सरोवर (गुजराथ) २) लोणार सरोवर (बुलढाणा)	१३

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— द्वितीय वर्ष कला (SYBA)

विषय — भूगोल (प्रात्यक्षिक भूगोल) एस २

प्रा. डी. एम. मारकड / प्रा. एम. एल. मुळूक आणि प्रा. मोढवे जी. पी.

महिना	घटक	उपघटक	अभ्यास घटक	प्रस्तावित तासिका
जून/जुलै २०१७	नकाशा आणि प्रमाण	नकाशा — व्याख्या, अर्थ आणि प्रकार	१) नकाशा — व्याख्या अर्थ आणि प्रकार २) नकाशा प्रमाण — व्याख्या आणि प्रकार, ३) ब्रिटिश आणि मेट्रिक मापन पद्धतीतील शब्दप्रमाण आणि अंकप्रमाण यांचे रूपांतर ४) साधी प्रमाणपट्टी तयार करणे ५) तूलनात्मक प्रमाणपट्टी तयार करणे.	१५
ऑगस्ट २०१७ ते सप्टेंबर २०१७	नकाशा प्रक्षेपण	१) नकाशा प्रक्षेपणाची गरज व्याख्या २) आणि आवश्यकता. ३) नकाशा प्रक्षेपणांच्या पद्धती आणि रचना यावरून वर्गीकरण	अ) खमध्य ध्रुवीय प्रक्षेपणे १) खमध्य ध्रुवीय केंद्रीय (गोमुखी) प्रक्षेपण २) खमध्य ध्रुवीय व्यासांतर प्रक्षेपण ब) शंकू प्रक्षेपणे १) एकप्रमाण अक्षवृत्त शंकू प्रक्षेपण २) बॉनचे प्रक्षेपण क) दंडगोल प्रक्षेपणे १) दंडगोल समक्षेत्र प्रक्षेपण २) मर्केटरचे प्रक्षेपण ड) सांकेतिक प्रक्षेपण मॉलविडचे प्रक्षेपण	२०
ऑक्टोबर २०१७ आणि डिसेंबर २०१७	आकडेवारी दर्शविण्याची विविध तंत्रे	आलेख आणि आकृत्या	१) साधा रेषालेख २) बहुरेषालेख ३) साधा स्तंभालेख ४) संयुक्त स्तंभालेख ५) विभाजित वर्तुळ ६) छाया पद्धती संगणकाच्या साहाय्याने आरेखन.	१५
जानेवारी	सांख्यिकीय	१) समष्टी आणि नमुना	१) समष्टी, नमुना, नमुना निवडीच्या	१०

ते मार्च २०१८	आकडेवारी विश्लेषणाच्या पद्धती	२) सांख्यिकीय आकडेवारी आणि वारंवारता	पद्धती, नमुन्याची वैशिष्ट्ये २) ताळारेषा आणि वारंवारता सारणी ३) स्तंभालेख आणि बहुभुजाकृती ४) संकलित वारंवारता वक्र आणि कमानी वक्र	
ऑगस्ट २०१७ ते मार्च २०१८	सर्वेक्षण	१) दिशा २) सर्वेक्षणाची व्याख्या ३) सर्वेक्षणाचे प्रकार	१) उत्तर दिशा ठरविण्याच्या पद्धती. यथार्थ उत्तर दिशा, चुंबकीय उत्तर दिशा, १) समतल फलक सर्वेक्षण — विकिरण पद्धती, आंतरछेदन अपूर्ण वेढा पद्धती २) लोलकीय होकायंत्र सर्वेक्षण — आंतरछेदन अपूर्ण वेढा पद्धती, आंतरछेदन पूर्ण वेढा पद्धती ३) जीपीएस सर्वेक्षण आणि आरेखन — अक्षवृत्ते, रेखावृत्ते आणि उंची आरेखन, क्ष आणि य आलेख अक्ष ४) डंपी संतलन — भू मापन व आरेखन	४०
जानेवारी फेब्रुवारी २०१८	सहल, क्षेत्र अभ्यास, गाव सर्वेक्षण व प्रयोगवही	देशातील कोणत्याही भौगोलिक पर्यटन स्थळांना भेटी/गावसर्वेक्षण	दोन दिवशीय लघु सहल किंवा पाच दिवशीय दीर्घ सहल.	२०

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल जी ३ (भारताचा प्रादेशिक भूगोल)

प्रा. डी. एम. मारकड आणि प्रा. मुळूक डी. डी./प्रा. मोढवे जी. पी.

तुकडी — अ आणि ब

महिने	घटक	उपघटक	अभ्यास घटक	प्रस्तावित तासिका
जून/जुलै २०१७	भारताचा परिचय	स्थान, विस्तार आणि भूराजनीतिक महत्व	१. ऐतिहासिक पार्श्वभूमी २. स्थान विस्तार ३. शेजारील देश आणि त्यांच्याशी संबंध ४. हिंदी महासागराचे भूराजनीतिक महत्व	१०
जुलै २०१७	प्राकृतिक रचना	महत्वाचे प्राकृतिक विभाग आणि महत्व	१. उत्तरेकडील पर्वतमय प्रदेश २. उत्तर भारतीय मैदाने ३. भारतीय द्विपकल्पीय पठार ४. किनारपट्टीचे मैदान ५. बेटे	१२
ऑगस्ट सप्टेंबर २०१७	जलप्रणाली	भारतातील जलप्रणाली हिमालयीन नदीप्रणाली द्विपकल्पीय नदीप्रणाली	सिंधू, गंगा, ब्रम्हपुत्रा, पूर्ववाहिनी नद्या महानदी, गोदावरी कृष्णा, कावेरी पश्चिम वाहिनी नद्या — नर्मदा, तापी, मही. कोकणातील नद्या. अंबा, दमणगंगा.	११
सप्टेंबर ऑक्टोबर २०१७	हवामान	हवामानाची वैशिष्ट्ये, उगम, मोसमी वाऱ्याचा सिद्धांत	१. भारताच्या हवामानाची वैशिष्ट्ये. २. भारताच्या हवामानावर परिणाम करणारे घटक ३. मोसमी वारे उगम आणि कार्य ४. भारतातील विविध ऋतू आणि हवामान	१२
डिसेंबर २०१७	मृदा आणि नैसर्गिक वनस्पती	प्रकार आणि वितरण	१. मृदेचे प्रकार आणि वर्गीकरण २. मृदा धूप आणि संधारण ३. वनांचे प्रकार आणि वितरण	१२
डिसेंबर २०१७ जानेवारी	खनिजे आणि शक्तीसाधने	खनिजे शक्तीसाधने	१. लोहखनिज, मॅंगनीज, बॉक्साईट आणि तांबे यांचे वितरण २. उर्जासाधने	१२

२०१८			३. पारंपारिक उर्जासाधने — द. कोळसा, खनिज तेल, नैसर्गिक वायू. ४. अपारंपारिक उर्जासाधने — जलविद्युत, सौर उर्जा, पवनउर्जा, बायोगॅस, अणुउर्जा	
जानेवारी फेब्रुवारी २०१८	भारतीय शेती	भारतीय शेतीचे महत्व आणि सद्यकालीन कल	१. शेतीचे भारतीय अर्थव्यवस्थेतील महत्व २. हरितक्रांती ३. धवलक्रांती ४. नीलक्रांती ५. पशुधन ६. हरितगृह	११
फेब्रुवारी मार्च २०१८	नियोजन आणि विकास	प्रादेशिक विकास आणि नियोजन	१. संकल्पना, ध्येये, आवश्यकता, २. भारतातील प्रादेशिक नियोजन ३. महाराष्ट्रातील प्रादेशिक विकास	१०

अध्यापन नियोजन आराखडा

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल (लोकसंख्या आणि वस्ती भूगोल) एस ३

प्रा. एम. एल. मुळूक

महिने	घटक	उपघटक	प्रस्तावित तासिका
प्रथम सत्र — लोकसंख्या भूगोल			
जुन/जुलै २०१७	प्रास्ताविक	१) लोकसंख्या भूगोल — व्याख्या, स्वरूप आणि व्याप्ती २) लोकसंख्या भूगोलाच्या अभ्यासाची गरज ३) लोकसंख्या भूगोलाच्या अभ्यास पद्धती ४) लोकसंख्याविषयक माहिती गोळा करण्याचे विविध मार्ग — जनगणना, राष्ट्रीय नमुना पहानी, नमुना पहणी नोंदवही, NFHS (राष्ट्रीय कुटुंब आरोग्य पाहानी), DLH (जिल्हास्तरीय कुटुंब पाहानी), इतर साधने	१०
जुलै २०१७	लोकसंख्या वैशिष्ट्ये	१) लोकसंख्येच्या वितरणावर आणि घनतेवर परिणाम करणारे घटक. २) जागतिक लोकसंख्या वितरण व भारतातील लोकसंख्या वितरणाची स्थिती ३) जागतिक व भारतीय लोकसंख्या वाढ ४) भारतीय लोकसंख्येची रचना — वयोरचना, लिंगरचना, ग्रामीण व शहरी लोकसंख्या, आर्थिक रचना	१०
ऑगस्ट/सप्टेंबर २०१७	लोकसंख्येची विविध अंगे	१) स्थलांतर — वर्गीकरण, स्थलांतरावर परिणाम करणारे घटक व स्थलांतराचे परिणाम, स्थलांतराचे नियम २) जनन, अनारोग्य आणि मर्त्यता, वैवाहिक स्थिती. ३) भारतातील मानव संसाधन विकास निर्देशांक.	१४

		<p>४) स्मार्ट शहर व स्मार्ट खेडे यावर स्थलांतराचा होणारा परिणाम.</p> <p>५) लोकसंख्याविषयक सिद्धांत — लोकसंख्या संक्रमण सिद्धांत (D.T.M.) माल्थसचा लोकसंख्याविषयक सिद्धांत</p>	
सप्टेंबर ऑक्टोबर २०१७	लोकसंख्या विषयक धोरण	<p>१) सन २००० चे लोकसंख्या विषयक धोरण</p> <p>२) भारतातील कुटुंबकल्याण कार्यक्रम</p>	११
द्वितीय सत्र			
डिसेंबर २०१७	वस्ती भूगोलाची ओळख	<p>१) वस्ती भूगोलाची व्याख्या, स्वरूप आणि व्याप्ती.</p> <p>२) वस्ती भूगोलाची वैशिष्ट्ये</p> <p>३) वस्ती भूगोलाच्या विविध शाखा</p>	१२
डिसेंबर २०१७ जानेवारी २०१८	मानव पर्यावरण सहसंबंध	१) वस्तीच्या वाढीवर व वितरणावर परिणाम करणारे घटक — प्राकृतिक, आर्थिक, सामाजिक, राजकीय घटक.	१०
जानेवारी/फेब्रुवारी २०१८	वस्ती	१) स्थळ, स्थिती, आकार, जागा, प्रकार.	१२
फेब्रुवारी मार्च २०१८	वसाहत संकल्पना आणि नागरिकीकरण	<p>१) नागरिकीकरण</p> <p>२) केंद्रीकरण</p> <p>३) नागरी विभाग किंवा शहरी विभाग</p> <p>४) ग्राम—नगर सिमान्त क्षेत्र</p> <p>५) क्षेत्री—आकार नियम</p> <p>६) स्मार्ट शहर</p> <p>७) स्मार्ट खेडे</p> <p>८) केंद्रीय व्यवहार विभाग ;गठणकेंद्र</p> <p>९) वसाहत श्रेणी</p>	११

अध्यापन नियोजन आराखडा

२०१७ — २०१८

वर्ग— तृतीय वर्ष कला (TYBA)

विषय — भूगोल (प्रात्यक्षिक भूगोल) एस ४

प्रा. डी. डी. मुळूक/प्रा. एम. एल. मुळूक आणि प्रा. मोढवे जी. पी.

एकुण तीन बॅचेस

महिने	घटक	उपघटक	प्रस्तावित तासिका
प्रथम सत्र			
जुलै/ऑगस्ट २०१७	भारततीय स्थलदर्शक नकाशे	अ) भारतीय स्थलदर्शक नकाशांचा अभ्यास प्रस्तावना १. सामासिक माहिती २. वृत्तजाळी संदर्भ ३. सांकेतिक चिन्हे आणि खुणा ब) स्थलदर्शक नकाशांचे प्रकार/निर्देशांक १. १: १०००००० दशलक्षी नकाशे २. १: २५०००० पावइंची नकाशे ३. १: १००००० अर्धा इंची नकाशे ४. १ : ५०००० एक इंची नकाशे ५. १ : २५००० ६. १ : ५००० नागरी आणि पर्यटन स्थळांचे नकाशे	१५
सप्टेंबर/ऑक्टोबर २०१७	उठाव दर्शविण्याच्या पध्दती	अ) उठाव दर्शविण्याच्या पध्दती १) गुणात्मक पध्दती — हॅच्युर्स, छाया पध्दती, रंग पध्दती. २) संख्यात्मक पध्दती — समोच्च रेषा, आकार रेषा, बेंच मार्क, स्थल उंचाक, त्रिकोणामिती पध्दती, तुलनात्मक उंची ब) समोच्च रेषांच्या साह्याने उठाव व्यक्त करण्याच्या पध्दती उतारांचे प्रकार १) अंतर्वक्र उतार २) बहिर्वक्र उतार ३) उभा उतार ४) तीव्र उतार ५) मंद उतार	१५

		६) सम उतार ७) विषम उतार ८) पायच्या पायच्याचा उतार भूरूपांचे प्रकार १) शंक्वाकृती टेकडी २) पठार ३) सुळका ४) खिंड ५) कडा ६) धबधबा क) छेद तयार करणे १) छेद तयार करण्याच्या पद्धती १. कागदी पट्टीच्या साह्याने छेद तयार करणे. २. दोऱ्याच्या साह्याने छेद तयार करणे. १) स्थलनिर्देशक नकाशामधील कोणत्याही भूप्रदेशाचा समोच्च रेषांच्या साह्याने छेद तयार करणे. २) नदीचा आणि रस्त्याचा छेद तयार करणे.	
डिसेंबर २०१७ जानेवारी २०१८	स्थलदर्शक नकाशांचे निरीक्षण, वाचन आणि माहिती संकलन	अ) स्थलदर्शक नकाशांचे वाचन १) पर्वतीय प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन २) पठारी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन २) मैदानी प्रदेशाच्या स्थलदर्शक नकाशाचे वाचन ब). क्षेत्र भेट — भूरूपांचे निरीक्षण आणि ओळख करून घेण्यासाठी एक दिवसीय क्षेत्र भेट आणि त्याचे संक्षिप्त अहवाल लेखन.	१५
फेब्रुवारी / मार्च २०१८	भौगोलिक माहिती प्रणाली आणि सुदूर संवेदन प्रणालीचे भूगोल विषयातील उपयोजन	अ) हवाई छायाचित्रे आणि उपग्रह प्रतिमा — प्रास्ताविक १) हवाई छायाचित्रांचे वाचन २) उपग्रहीय प्रतिमांचे वाचन ब) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचे वाचन करताना संगणकाचे उपयोजन क) हवाई छायाचित्रे आणि उपग्रह प्रतिमांचा अभ्यास करण्याकरीता ओपन सोर्स सॉफ्टवेअर माहिती	१५ ५
जुलै / ऑगस्ट २०१७	हवामानदर्शक नकाशांचे वाचन	अ) प्रस्तावना — हवामान दर्शक नकाशे. ब) हवामान दर्शक नकाशांचे वाचन करताना उपयुक्त सांकेतिक चिन्हे आणि खुणा (भारतीय हवामान खात्याकडून प्रमाणित) क) हवेच्या दाबाची प्रारूपे १) आवर्त	१२

		२) प्रत्यावर्त ३) व्ही आकाराचे आवर्त ४) व्ही आकाराचे प्रत्यावर्त ५) दुय्यम आवर्त ५) कोल ड) हवामानशास्त्रीय नकाशांचे वाचन १. उन्हाळा २. पावसाळा ३. हिवाळा इ) हवामानशास्त्रीय उपकरणांचे निरीक्षण करण्यासाठी हवानशास्त्रीय प्रयोगशाळेस भेट	
सप्टेंबर/ऑक्टोबर २०१७	केंद्रीय प्रवृत्तीची परिमाणे	अ) भौगोलिक आकडेवारी आणि चल १) प्रादेशिक आणि काळानुरूप चल २) खंडीत आणि अखंडीत श्रेणी ३) वर्गीकृत आणि अवर्गीकृत श्रेणी ब) केंद्रीय प्रवृत्तीची परिमाणे १) सरासरी २) मध्यमान ३) मध्यगा ४) बहुलक प्रत्येकी दोन उदाहरणे	१२
डिसेंबर २०१७	विचलनाची परिमाणे	अ) विचलन ब) प्रमाणित विचलन प्रत्येकी दोन उदाहरणे	६
जानेवारी २०१८	सहसंबंध आणि समाश्रयण गृहीततत्वाच्या चाचण्या	अ) सहसंबंध आणि समाश्रयण १) सहसंबंध गुणांक २) पिअरमन पद्धती ३) स्पिअरमन पद्धती ४) समाश्रयण प्रत्येकी दोन उदाहरणे ब) गृहीततत्वाच्या चाचण्या १) परिमाणात्मक चाचण्या २) परिमाणरहीत चाचण्या ३) विमुक्त संख्यामापन ४) कायवर्ग चाचणी ५) स्टुडंट 'टी' चाचणी	१०
जानेवारी/फेब्रुवारी मार्च २०१८	क्षेत्र भेट / सहल गावसर्वेक्षण अहवाल लेखन	अ) दोन दिवसीय सहल किंवा मोठी सहल — किमान पाच दिवसांच्या कालावधीसाठी (संपूर्ण भारतात कोठेही) ब) गावसर्वेक्षण दोन्ही प्रात्यक्षिकांचे अहवाल लेखन	

प्रा. दिलीप मुळूक
भूगोल विभाग प्रमुख



K.T.S.P. Mandal's

HUTATMA RAJGURU MAHAVIDYALAYA

Rajgurunagar, Tal. Khed, Dist. Pune- 410505

Faculty :- Mental Moral & Social Science

DEPARTMENT OF POLITICAL SCIENCE

SYLLABUS COMPLETION REPORT-2017-18

Name of Professor: DR. KAILAS SONAWANE

Sr.	Class	Subject Name	Subject Professor
1.	FYBA	Indian Government And Politics -[G1]	Dr. Kailas Sonawane
2.	SYBA	Western Political Thought (S1)	Dr. Kailas Sonawane
3.	TYBA	Public Administration (S3)	Dr. Kailas Sonawane

SYLLABUS COMPLETION REPORT-2017-18

Paper Name: **INDIAN GOVERNMENT AND POLITICS -[G-1]**

Class : **F.Y.B.A**, Division: **A, B, C, D**

Name of Professor: **DR. KAILAS SONAWANE**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July-2017	12	Topic 1: Background and the Salient Features of Indian Constitution	a) Formation of Constituent Assembly b) Philosophy of the Preamble for Indian Constitution c) Major Features: Parliamentary Democracy, Federalism, Independent Judiciary –Social Justice and Social Transformation
August-2017	12	Topic 2: Fundamental Rights, Duties and the Directive Principles of State Policy	a) Nature of Fundamental Rights –Major Fundamental Rights-Right to Equality, Right to Liberty, Right to Freedom of Religion, Cultural and Educational Rights b) Importance of Fundamental Duties c) Nature and Significance of Directive Principles of State Policy
Sept. -2017	12	Topic 3: Federalism	A) Salient Features of Indian Federalism b) Centre –State Relations c) Issues of Conflict-Water Issue, Border Issue and Sharing of Resources
Sept. 2017	12	Topic 4: Structure of Union Government -Legislature-Executive – Judiciary	a) Union Legislature - Structure-Powers and Role b) Union Executive-President, Prime Minister and his Cabinet- Role and Functions c) Judiciary- Nature of Judiciary, Supreme Court-Powers and Functions

Term-II

December -2017	12	Topic 5: Structure of State Government -Legislature-Executive – Judiciary	a) State Legislature - Structure-Powers and Role b) State Executive-Governor , Chief Minister and his Cabinet- Role and Functions c) Judiciary- Nature of Judiciary, High Court-Powers and Functions
January - 2018	12	Topic 6: Party System and Elections	a) Nature and Changing Pattern of Party System b) Elections- Election Commission :-Major Features of Electoral System and Patterns Of Voting Behavior c) Rise and Role of Regional Parties
February -2018	12	Topic 7: Role of Caste and Religion in Indian Politics	a) Caste and Politics of Identity b) Rise of OBCs c) Religion and Politics of Communalism
March - 2018	12	Topic 8: Issues of Regionalism and Development	a) Causes and Patterns of Regionalism b) Issues of Development-Uneven Development-Leading to Regional Imbalance-Poverty Eradication, Health and Education

SYLLABUS COMPLETION REPORT-2017-18

Paper Name : **WESTERN POLITICAL THOUGHT [S-1]**

Class : **S.Y.B.A.**, Division : --

Name of Professor : **DR. KAILAS SONAWANE**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July- 2017	12	Unit –I Plato	a) Ideal State & Philosopher King b) Views on Education c) Views on Justice & Communism
August- 2017	12	Unit – II Aristotle	a) Views on State b) Views on Property, Views on Slavery c) Views on Revolution
Sept./ August- 2017	12	Unit – III Machiavelli	a) Views on Human Nature b) Views on Religion & Morality c) Theory of Statecraft
Sept.- 2017	12	Unit – IV J.S.Mil	a) Views on Utilitarianism b) Views on Liberty c) Views on Representative Government & State

Term – II

Sept.- 2017	12	Unit – V Karl Marx	a) Historical Materialism b) Theory of Class & Struggle c) Theory of State & Revolution
Dec- 2017	12	Unit – VI Hobbes	a) State of Nature b) Views on Human Nature c) Theory of Social Contract
Jan- 2018	12	Unit – VII John Locke	a) Theory of Social Contract b) Views on natural Rights c) Views on civil society & State
Feb- 2018	08	Unit – VI Rousseau	a) State of Nature & Views on Human Nature b) Theory of General Will
Mar- 2018	4	Rousseau	c) Theory of Social Contract

SYLLABUS COMPLETION REPORT-2017-18

Paper Name: **PUBLIC ADMINISTRATION [S-3]**

Class : **T.Y.B.A.**, Division : --

Name of Professor : **DR. KAILAS SONAWANE**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July-2017	6	Unit – I Public Administration	(a) Public Administration Meaning, nature,
August-2017	6	Unit – I Public Administration	Scope and significance
Sept./ August-2017	12	Unit – II New public Administration	(a) Evolution (b) Salient features (c) Goals
Sept./Oct.-2017	12	Unit – III Approaches of public Adm.	(d) Traditional (e) Behavioral (c) System
Sept.-2017	12	Unit – IV Governance	(a) Idea of good Governance (b) E-Governance (c) Public private Partnerships

Term-II

Sept-2017	12	Unit – V Bureaucracy	(a) Meaning and Definition (b) Administrative Reforms
Dec.-2017	12	Unit – VI Personnel Administration	(a) Recruitment (b) Training (c) Promotion
Jan-2018	12	Unit – VII Budget	(a) Meaning and types (b) Budgetary process in India
Feb-2018	6	Unit – VIII Accountability and Control	(a) Administrative Control (b) Legislative Control
Mar-2018	6	---//---	(c) Judicial Control



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Rajgurunagar, Tal. Khed, Dist. Pune- 410505

Faculty :- Mental Moral & Social Science

DEPARTMENT OF POLITICAL SCIENCE

SYLLABUS COMPLETION REPORT-2017-18

Name of Professor: **DR. PRABHAKAR JAGTAP**

Sr.	Class	Subject Name	Subject Professor
1.	SYBA	Political Theory& Concepts-[G-2]	Dr. Prabhakar Jagtap
2.	SYBA	Political Sociology-[S-2]	Dr. Prabhakar Jagtap
3.	TYBA	International Politics-[S-4]	Dr. Prabhakar Jagtap
4.	TYBA	Political Ideologies-[G-3]	Dr. Prabhakar Jagtap

SYLLABUS COMPLETION REPORT-2017-18

Paper Name: **POLITICAL THEORY& CONCEPTS-[G-2]**

Class : **S.Y.B.A.**, Division: **A & B**

Name of Professor: **DR. PRABHAKAR JAGTAP**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July-2017	12	Unit – I - Introducing Political Theory	a) Definitions, Nature & Scope b) Traditions of Political Theory: Liberal & Conservative
August-2017	12	Unit – II State	a) Definitions Meaning and Elements b) Perspectives on State (Liberal, Marxist)
Sept./ August-2017	12	Unit – III Power & Authority	a) Conceptions of Power, Power as Exploitation, Authority, Hegemony, Foucault on Power b) Authority: Meaning, Nature & its forms
Sept.-2017	12	Unit – IV Right and Justice	a) Meaning, Nature & Kinds of Rights b) Dimensions of Justice (Social, Economic Political)

Term-II

Sept.- 2017	12	Unit – V Liberty and Equality	a) Liberty: Meaning, Nature, Classification: Negative & Positive Liberty b) Equality: Meaning, Nature, Types of Equality: Equality OF Opportunity; political Equality, Affirmative Action
Dec.- 2017	12	Unit – VI Democracy	a) The Concept of Democracy, Direct Participatory & Liberal Democracy b) Perspectives on Democracy, Merits and demerits
Jan- 2018	12	Unit – VII Sovereignty	a) Meaning & Characteristics of sovereignty b) Theory of Popular Sovereignty
Feb- Mar - 2018	12	Unit – VIII Globalization	a) Definition, Meaning b) Impact of Globalization

SYLLABUS COMPLETION REPORT-2017-18

Paper Name : **POLITICAL SOCIOLOGY-[S-2]**

Class : **S.Y.B.A** Division : --

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July- 2017	12	Unit – I Definition, Nature and Scope of Political Sociology	Definition, Nature and Scope of Political Sociology
August- 2017	12	Unit – II Intellectual Foundation of Political Sociology	a) Marx b) Max Weber c) Behavioral Approach
Sept./ August- 2017	12	Unit – III Political Culture	a) Meaning and Nature b) Types of Political Culture
Sept.- 2017	12	Unit – VI Political Socialization	a) Process and Agencies of Socialization

Term-II

Sept.- 2017	12	Unit – V Political Ideology	a) Meaning and Nature
Dec- 2017	12	Unit – VI Political Participation	a) Meaning and Nature b) Levels of Participation c) Agencies of Recruitment
Jan-2018	12	Unit – VII Legitimacy and Influence	a) Meaning and Nature b) Types
Feb.- 2018	06	Unit – VIII Political Change, Political Development	a. Meaning and Nature b. Types of Political Change
Mar- 2018	06	--/--	c) Concept of Political Development

SYLLABUS COMPLETION REPORT-2017-18

Paper Name: **POLITICAL IDEALOGIES [G-3]**

Class : **T.Y.B.A** Division : **A&B**

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	No. of Periods	Unit/ Chapter	Sub- Units
July-2017	08	Unit – I Ideology	a) Origin, Meaning, Definition b) Nature and Scope
August- 2017	14	Unit – II Nationalism	a) Meaning, Definitions and Elements b) Progressive and Reactionary c) Internationalism
August/ Sept.-2017	14	Unit – III Democratic Socialism	a) Meaning, Nature and Features b) Achievements and Limitations c) Types : Febianism, Syndicalism, Guild Socialism
Sept.-2017	12	Unit – IV Fascism	a) Factors responsible for the rise of Fascism b) Principles c) Corporate State

TERM -II

Sept.- 2017	12	Unit – V Marxism	a) Historical Materialism b) Theory of Surplus Value c) Marxian State
Dec.- 2017	12	Unit – VI Phule- Ambekarism	a) Equality b) Religion c) Democracy
Jan.- 2018	12	Unit – VII Gandhism	a) Truth and Non-Violence b) Theory of Satyagraha c) Gram Swaraj
Feb- March- 2018	12	Unit – VIII Feminism	a) Meaning and Nature b) Liberal Feminism c) Feminism in India : Caste, Patriarchy, Women's Representation

SYLLABUS COMPLETION REPORT-2017-18

Paper Name: **INTERNATIONAL POLITICS [S-4]**

Class : **T.Y.B.A** Division :--

Name of Professor : **DR. PRABHAKAR JAGTAP**

Term-I

Month	No. of Periods	Unit/Chapter	Sub- Units
July-2017	12	Unit – I International Politics	a) Nature and Scope b) Theories of Idealism and Realism
August-2017	12	Unit – II Approaches to the Study of International Relations	a) Power Approach b) Decision Making Approach c) System Approach
August- /Sept.-2017	12	Unit – III Power	a) Meaning b) Elements c) Changing Nature of the National Power
Sept.-2017	12	Unit – VI Balance of Power	a) Meaning and Nature b) Characteristics c) Changing Nature of the Balance of Power

Term-II			
Sept.- 2017	12	Unit – V Security	a) Meaning and definition b) Regional Security c) Collective Security
Dec.- 2017	12	Unit – VI Diplomacy	a) Meaning b) Types of Diplomacy c) Challenges To Diplomacy
Jan-2018	12	Unit – VII Disarmament	a) Meaning and Nature b) Types of Disarmament c) Issues and Challenges
Feb- March- 2018	12	Unit – VIII Issues in International Politics	a) Human Rights –Its variations and Measures b) Terrorism – Causes and Consciousness

KTS Mandal's
HUTATMA RAJGURU MAHAVIDYALYA
RAJGURUNAGAR, TAL- KHED,DIST-PUNE.

Time-Tables

Academic Year-2017-18

Department of English

A.G.K

Period	Time	Mon	Tue	Wed	Thu	Fri	Sat
1	7.30-8.20	FY B.A. (Div-A)					
2	8.20-9.10	S1	S1	S1	S1	F2	FY B.A. (Div-A)
3	9.20-10.10	TY B.A. (Div -A)	TY B.A. (Div -A)	S4	FY B.A. (Div-A)	FY B.A. (Div-A)	S4
4	10.10-11.00		Addition al English	Addition al English	F2	TY B.A. (Div -A)	TY B.A. (Div -A)
5	11.00-11.50			Addition al English	Addition al English		
6							

Dr.H.J.C

Period	Time	Mon	Tue	Wed	Thu	Fri	Sat
1	7.30-8.20	SY B.Sc.	SY B.Sc.	SY B.Sc.	SY B.Sc.		
2	8.20-9.10		S3	FY B.A. (Div B)	FY B.A. (Div B)	FY B.A. (Div B)	
3	9.20-10.10	G2	G2		S3	S4	FY B.A. (Div B)
4	10.10-11.00	S3		S4	S3	F4	
5	11.00-11.50	F4				G2	G2
6							

Dr.Raskar

Period	Time	Mon	Tue	Wed	Thu	Fri	Sat
1	7.30-8.20	FY. B.Com (Div-D)	FY. B.Com (Div-D)	S2			FY BCom Div D
2	8.20-9.10			G3	G3	S2	S2
3	9.20-10.10	TY B.A. (Div-B)	TY BA (Div B)				
4	10.10-11.00	F1	G3	G3	S2	TYBA (Div- B)	TYBA (Div- B)
5	11.00-11.50	F1	F1			F1	FY BCom Div D
6							

PROF. S.S. ALHAT

PRIOD	TIME	MON	TUE	WED	THU	FRY	SAT
1	7.30	S Y BSC		SYBSC		F4	
2	8.20		S3		FYBA B	FYBA B	
3	9.20				SYBA B	SYBA B	SYBA B
4	10.10	SYBA B	S4	S3	S3		F4
5	11.00	F6	F6	S3	S4	F6	F6
6	11.50						

Prof. Dhore

Period	Time	Mon	Tue	Wed	Thu	Fri	Sat
1	7.30-8.20		F5	G2	F3	F5	
2	8.20-9.10	F5				F5	
3	9.20-10.10	F2	G2	F3	S.Y.B.A-A		
4	10.10-11.00	SY B.A-A	F3	FY B.Com. (Div-B)		F4	F2
5	11.00-11.50	FYBCOM -B		F3	F4	G2	G2
6							

Prof. A.G.Kulkarni
Head, Department of English

**HUTATMA RAJGURU MAHAVIDYALYA
RAJGURUNAGAR, TAL- KHED,DIST-PUNE.**

**Department of English
Work-Load
2017-18 (Under Graduate)**

CLASS	SUBJECT	GRANTABLE	NON-GRANTABLE	TOTAL	REMARK
FYBA	COMP. ENGLISH	8	8	16	
FYBA	ADDITIONAL ENGLISH	4	-	04	
FYBA	FUNCTIONAL ENGLISH	-	8	08	PAPER I & PAPER II
SYBA	COMPULSORY ENGLISH	8	4	12	Div-C
SYBA	SPECIAL ENGLISH /GENERAL ENG	12	-	12	SI, SII, G II
SYBA	FUNCTIONAL ENGLISH	-	8	08	PAPER III & IV
TYBA	COMPULSORY ENGLISH	8	-	08	
TYBA	SPECIAL ENGLISH /GENERAL ENG	12	-	12	S III, S IV, G III
TYBA	FUNCTIONAL ENGLISH	-	08	08	PAPER V & VI
FYBCOM	COMPULSORY ENGLISH	4	28	32	Div-A+B,C,D,E,F ,G,H
SYBSC	COMPULSORY	4	-	04	
SYBCS	COMPULSORY ENGLISH	-	4	04	
MA Part- I	4 Papers	-	16		4 papers

					into 4 clock hours
MA Part- II	4 Papers		16		4 papers into 4 clock hours
TOTAL		60	UG-68+ PG-32	UG-128+ PG 32=160	

**Department of English
Work Load (Post Graduate)
2017-2018**

MA Part I - One Teacher

MA Part II - One Teacher

60 clock hours a term : For each paper

*** four papers = Total 240 clock
hours
(for each part each semester)**

Part I 240 clock hours (per semester)

Part II 240 clock hours (per semester)

Total = 480 clock hours per semester

Skill Based Courses : 10 credits_

**Cyber Security
Human Rights
Skill Development**

(College can appoint common teacher/s for all the P.G. courses for skill based credit courses.)

Prof. A.G.Kulkarni

Head, Department of English