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**Department of Zoology**

**T. Y. B. Sc.**

**ZO 355: Developmental Biology Question Bank  
Semester V**

**By**

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**A) Define or Explain: –**

- 1) Developmental Biology.
- 2) What is Growth?
- 3) Differentiation.
- 4) Dedifferentiation.
- 5) Cell determination.
- 6) Cell Communication.
- 7) Morphogenesis.
- 8) Induction.
- 9) Regeneration.
- 10) Who proposed the theory of Epigenesis?
- 11) Who proposed the theory of Germplasm?
- 12) Spermatogenesis.
- 13) Oogenesis.
- 14) Spermiogenesis.
- 15) External Fertilization.
- 16) Internal Fertilization.
- 17) Chemotaxis.
- 18) Polyspermy.
- 19) Chemotaxis.
- 20) What is Organizer?
- 21) Which type of Egg present Hen?
- 22) What is Blastula?
- 23) What is Gastrula?
- 24) Convergence.
- 25) What is Capacitation?
- 26) What is Cleavage?

**B) Short Answer Questions:-**

- 1) Give the scopes of Developmental Biology.
- 2) What is Regeneration? Add a note on regeneration.
- 3) Describe in detailed the theory of Axial gradient & pangenesis.
- 4) Draw neat labeled diagram of human sperm.
- 5) Draw neat labeled diagram of human Ovum.
- 6) Describe the differ types of Eggs.
- 7) Describe the Planes and Symmetry of Cleavage.
- 8) Add a note on significance of Cleavage.
- 9) Define Blastula & Describe the type of Blastula.
- 10) What is Fertilization & Add a note on types of Fertilization.
- 11) Add a Note on Activation of Ovum.
- 12) Define Polyspermy. Describe the Fast block & slow block of Polyspermy.
- 13) Describe the Sperm Penetration.
- 14) What is Organizer? Describe the Concept of Organizer.
- 15) Describe the development of primitive streak in chick Embryo.
- 16) Add a note on fertilization & Cleavage in Chick.
- 17) Describe the head process & regression of Primitive streak in chick embryo development .
- 18) Draw neat labeled diagram of Hen's Egg.
- 19) Describe Activation of Ovum & formation of fertilization Cone.
- 20) Add a Note on Chemotaxis.
- 21) Describe the theory of preformation.

**C) Long Answer Questions:-**

- 1) Define Oogenesis and describe the process of Oogenesis with respect to human.
- 2) Define Spermatogenesis and describe the process of Spermatogenesis with respect to human.
- 3) What is Gastrulation? Describe the different type of Morphogenic movements are occurs during the formation of gastrula.