



K22P 1438

Reg. No. : .....

Name : .....

**III Semester M.Sc. Degree (CBSS-Reg./Sup./Imp.) Examination, October 2022  
(2019 Admission Onwards)**

**ZOOLOGY**

**ZOO3C11 : Developmental Biology and Endocrinology**

Time : 3 Hours

Max. Marks : 60

**PART – A  
(Developmental Biology)**

- I. Answer **any one** of the following : (1×12=12)
- 1) Explain the vulva formation in *Caenorhabditis elegans*.
  - 2) Explain the limb development in chick.
- II. Answer **any two** of the following : (2×8=16)
- 3) Explain the patterns of cleavage.
  - 4) Briefly explain the environmental regulation of development and sex determination.
  - 5) Explain the egg sperm interactions, mention the role of specific molecules in egg sperm interactions.
  - 6) Mechanism of axis formation in amphibian development.
- III. Answer **any two** of the following : (2×5=10)
- 7) Commitment.
  - 8) Embryonic stem cells.
  - 9) Epithelial mesenchymal interactions.

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**PART – B  
(Endocrinology)**

- IV. Answer **any one** of the following : (1×12=12)
- 10) Write an account on the neuroendocrine system of crustaceans.
  - 11) Explain the nature and principles of hormone action.
- V. Answer **any two** of the following : (2×5=10)
- 12) Explain the moulting hormones in insects.
  - 13) Write an account on the biosynthesis of steroid hormones.
  - 14) Explain the effect of abnormal secretion of hormones and their effect on growth.