

CS/2110

Zoo; 301: Paper I: Developmental Biology

10399/NH

Semester V

Attempt five questions in all selecting two questions from each section (A & B). Section C is Compulsory

Time 3 Hours

M.M. =40

Section : A

1. Define Gametogenesis. Explain in detail with special reference to differentiation of spermatozoa. 6
2. A) Discuss the role of subtesticular cells in gametogenesis. 3
B) Write a short note on polarity of egg. 3
3. Write an account on the following:
A) Parthenogenesis 3
B) Cleavage patterns. 3
4. Describe basic concepts of organizers and inducers and their role. 6

Section : B

5. Discuss development upto three germ layers and their fate in *Herdmania* with well labeled diagram. 6
6. Describe metamorphosis in Frog. 6
7. Describe foetal membranes, their formation and role in detail. 6
8. Explain mammalian placenta, its formation, types and functions. 6

Section : C

- 9.
- I. Vitellogenesis
 - II. Folliculogenesis
 - III. Fertilization
 - IV. Egg maturation
 - V. Egg membranes
 - VI. Determination
 - VII. Differentiation
 - VIII. Embryonic development **8X2 =16**