

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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B.A./B.Sc. (General) 5th Semester
(2122)

ZOOLOGY
(Developmental Biology)
Paper-I (ZOO-501)

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :—Question No. 1 is compulsory. One question is to be attempted from each Unit. In all, five questions are to be attempted including the compulsory question. Draw diagrams wherever necessary to support your answer.

1. Explain briefly :

- (a) Egg polarity
- (b) Organizers
- (c) Yolk sac
- (d) Lipochondria
- (e) Anisogamy
- (f) Subtesticular cells
- (g) Intercalation
- (h) Paedogenesis.

1×8

UNIT-I

2. Write notes on :
- (a) Vitellogenesis 3.5
 - (b) Role of follicle cells in gametogenesis. 3.5
3. Write notes on :
- (a) Polarity of egg 3.5
 - (b) Egg membranes and their functions. 3.5

UNIT-II

4. Describe the various cleavage patterns depending upon the orientation of mitotic apparatus and give significance of cleavage. 7
5. (a) Describe fate maps of chick embryo 4
- (b) Discoidal cleavage 1.5
 - (c) Parthenogenesis. 1.5

UNIT-III

6. Write short notes on interaction of cell :
- (a) Juxtacrine and paracrine interaction 3
 - (b) Gap junctions 2
 - (c) Inducers and their role in development. 2
7. Give development upto 3 germ layers in Frog. 7

UNIT-IV

8. (a) Comment on metamorphosis in *Herdmania*. 4
- (b) Describe the different types of placenta regarding the distribution of villi. 3
9. Describe foetal membranes of Rabbit, their formation and role. 7