

(i) Printed Pages : 2

Roll No. ....

(ii) Questions : 9

Sub. Code : 

1	7	4	5	6
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Exam. Code : 

0	0	0	5
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B.A./B.Sc. (General) 5<sup>th</sup> Semester  
(2125)

ZOOLOGY

Paper-I : Developmental Biology (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 one. Draw suitable diagrams wherever necessary.

1. Write briefly:

- (a) Pluripotent
- (b) Chromosomal Puffing
- (c) Placula
- (d) Adhesive papillae
- (e) Regulative egg
- (f) Chalaza
- (g) Trophoblastic Villi
- (h) Paedogenesis

8×1=8

### UNIT-I

2. Discuss the role of sub-testicular cells in gametogenesis. 7
3. Write short notes on:
  - (a) Polarity of egg
  - (b) Vitellogenesis 3.5×2=7

### UNIT-II

4. Give the mechanism of fertilization, give its significance. 7
5. Write short notes on:
  - (a) Indeterminate cleavage
  - (b) Radial cleavage
  - (c) Draw a neat diagram of chick embryo fate maps 2+2+3=7

### UNIT-III

6. Discuss the development of frog up to 3 germ layers. 7
7. Briefly explain:
  - (a) Paracrine interactions
  - (b) Ascidian Tadpole of *Herdmania*
  - (c) Blastocyst of rabbit 2+3+2=7

### UNIT-IV

8. What are foetal membranes? Discuss the various types of foetal membranes of Rabbit & their role. 7
9. (a) Why is the metamorphosis of *Herdmania* called retrogressive? 4
- (b) Give the functions of placenta. 3