

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

0	4	5	6
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Exam. Code :

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B.Sc. (General) 5th Semester

1128

ZOOLOGY

Paper-I : Development Biology (ZOO-501)

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :- Attempt **five** questions in all, including Q. No. 1 which is compulsory and selecting **one** question from each unit (I-IV).

1. Explain briefly :

- (a) Yolk sac
- (b) Chromosome puffing
- (c) Discoblastula
- (d) Egg polarity
- (e) Indeterminate embryo
- (f) Fate maps
- (g) Lipochondria
- (h) Physiological polyspermy.

8×1=8

UNIT-I

2. Give the structure of a mammalian sperm and explain the process of spermatogenesis.

7

3. Write notes on :
- (a) Vitellogenesis
 - (b) Types of egg membranes. 3.5×2=7

UNIT-II

4. What is fertilization ? Discuss the main events and its significance in life cycle. 7
5. Briefly discuss :
- (a) Parthenogenesis
 - (b) Types of cleavage patterns. 7

UNIT-III

6. (a) What are Organizers and inducers ? Give their role in development.
- (b) Explain differentiation. 7
7. Discuss the development of Frog upto three germ layers. 7

UNIT-IV

8. Describe the placenta in mammals, giving its types and functions. 7
9. Explain metamorphosis in frog. How does it differ from that in Herdmania ? 7