

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

1	1	8	6	9
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Exam. Code :

5	0	1	4
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Bachelor of Science (FYUP) 4th Semester

(2056)

ZOOLOGY

Paper : Development Biology

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— (1) Question No. 1 is compulsory.

(2) Attempt **ONE** question from each unit.

1. Write brief notes on the following:

(a) Define gametogenesis.

(b) What is spermiogenesis?

(c) Define vitellogenesis.

(d) What is egg polarity?

(e) Define fertilization.

(f) What is parthenogenesis?

(g) Define cleavage.

(h) What is blastula?

(i) Name the three germ layers formed during gastrulation.

(j) What is metamorphosis? $10 \times \frac{1}{2} = 15$

UNIT-I

2. (a) Describe the process of spermatogenesis with the help of diagram. 8

(b) Explain vitellogenesis and its importance. 5

3. Write notes on:

(a) Types of egg

(b) Membranes of egg. $6+7=13$

UNIT-II

4. (a) What do you understand by parthenogenesis? Explain types.

(b) Write steps involved in fertilization. $6+7=13$

5. (a) Types of cleavage patterns depending upon amount of yolk.

(b) Explain types of blastula. $6.5+6.5=13$

UNIT-III

6. (a) Explain morphogenetic movements.

(b) Describe the fate of the three germ layers. $5+8=13$

7. Discuss in detail the development up to three germ layers in rabbit. 13

UNIT-IV

8. (a) Explain the role of Foetal membranes.
(b) Explain the formation of foetal membranes. $6+7=13$
9. (a) Explain the formation and functions of mammalian placenta.
(b) Explain metamorphosis in Frog and difference form in Herdmania. $6.5+6.5=13$