

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

1	1	8	1	0
---	---	---	---	---

Exam. Code :

5	0	1	3
---	---	---	---

**Bachelor of Science (FYUP) 3rd Semester
(2125)**

ZOOLOGY

Paper : Developmental Biology

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question each from Units I - IV.

1. Explain briefly :

- (a) Leydig cells
- (b) Graffian follicle
- (c) Acrosome
- (d) Anisogamy
- (e) Haploid Syndrome
- (f) Egg Polarity
- (g) Retrogressive metamorphosis
- (h) Notogenesis
- (i) Somites
- (j) Blastodisc

1.5×10=15

UNIT—I

2. (a) Describe the process of spermatogenesis with supporting diagrams
- (b) Explain vitellogenesis and its importance. $8+5=13$
3. Write notes on :
- (a) Types of Eggs
- (b) Egg membranes $6+7=13$

UNIT—II

4. (a) Describe the process of fertilization in animals.
- (b) Can development take place without fertilization? $10+3=13$
5. (a) Discuss types of cleavage patterns.
- (b) Explain the types of blastula in animals $9+4=13$

UNIT—III

6. Write notes on :
- (a) Morphogenetic movements in gastrulation
- (b) Fate maps $7+6=13$
7. Discuss in detail the development up to three germ layers in Chick embryo. 13

UNIT—IV

8. Describe the formation and role of foetal membranes. 13
9. Explain metamorphosis in Rana (Frog). How does it differ from that of Herdmania? 13