

ZOOLOGY PAPER-B

Bio-Diversity and Cell Biology-II (ZOO-102)

Time Allowed : Three Hours

Maximum Marks : 36

- Note : (i) Attempt five questions in all.
(ii) Question No. 1 is compulsory.
(iii) Select one question from each unit.
(iv) Illustrate your answers with suitable diagrams.

1. Define/Give brief explanation of the following :

- | | | |
|-------------------|----------------------|-------|
| (a) Flame cells | (b) Ootype | |
| (c) Pseudocoel | (d) Clitellum | |
| (e) Hermaphrodite | (f) Autophagy | |
| (g) Svedberg unit | (h) Passive immunity | 1×8=8 |

UNIT-I

2. Give an account of the reproductive systems of *Fasciola*. 7
3. (a) Describe the structure of *Miracidium* larva. 7
- (b) Name and describe the sense organs found in *Ascaris*. $3\frac{1}{2} \times 2 = 7$

UNIT-II

4. Describe the circulatory system of *Pheritima*. 7
5. (a) Describe the structure of septal nephridium. 3
- (b) Classify upto orders with ecological note and economic importance (if any) of any two of the following :
- (i) *Aphrodite*
- (ii) *Pontobdella*
- (iii) *Nereis* 2×2=4

UNIT-III

6. Describe the kinds of lysosomes. Also give the names of enzymes present in the lysosome. 7
7. Describe the structure and functions of centrosome. 7

UNIT-IV

8. Discuss the gross morphology and function of the nucleus. 7
9. What are cancer cells? How do they form? Give basic idea of transformation of normal cell into cancerous one. 7