

ZOOLOGY PAPER-I

[Bio-diversity & Cell Biology-I (ZOO-101)]

Time Allowed : Three Hours

Maximum Marks : 36

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

1. Explain briefly :

- (a) Lobopodia
- (b) Kappa particles
- (c) Tricho cyst
- (d) Coral reefs
- (e) Primary host
- (f) Exocytosis
- (g) Compound Microscope
- (h) Binary fission

8 × 1 = 8

Unit-I

2. Write notes on :

- (a) Osmoregulation in *Amoeba*
- (b) Reproduction in *Paramecium*

4 + 3 = 7

3. Discuss the life cycle of *Plasmodium Vivax* in man.

7

4. Discuss the canal system in Sycon (Scypha). 7

5. Write notes on :

(a) Locomotion in *Hydra*

(b) Medusa in *Obelia* 4+3=7

Unit-III

6. Explain the model which best explains the structure and functions of Plasma Membrane. 7

7. (a) What is the purpose of fixation? Name some common fixatives. 4+3=7

(b) Give differences between SEM and TEM.

Unit-IV

8. Give the detailed structure of Golgi Complex and discuss the role it plays in the cell. 7

9. (a) What is the role of mitochondria in cell respiration? 4+3=7

(b) Differentiate between RER & SER.