

## ZOOLOGY PAPER-II

### Bio-Diversity (ZOO-102)

Time Allowed : Three Hours

Maximum Marks : 67

- 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) Scolex       | (b) Setae                  |
| (c) Onchosphere  | (d) Chloragogen cell       |
| (e) Statocyst    | (f) Spermatheca            |
| (g) Endocytosis  | (h) Benign Tertian Malaria |
| (i) Balastostyle | (j) Protandry.             |

1½×10=15

#### UNIT-I

2. (a) Describe the binary fission in Amoeba.  
(b) Define and explain Autogamy in Paramecium.
3. (a) Illustrate the life history of Plasmodium with the aid of a series of labelled figures only.  
(b) Classify upto orders, with ecological note and economic importance (if any) of any two of the following :

- |                   |                  |
|-------------------|------------------|
| (i) Trypanosoma   | (ii) Nyctotherus |
| (iii) Balantidium | (iv) Entamoeba.  |

#### UNIT-II

4. (a) Give an account of canal system of Scypha.  
(b) Explain the structure of Amphiblastula.

3×2=

5. (a) Differentiate between Polyp and Medusa. 7  
 (b) Classify upto orders and write ecological note and economic importance (if any) of any two of the following :  
 (i) Euplectella (ii) Aurelia  
 (iii) Metridium (iv) Hydra 3×2=6

#### UNIT-III

6. (a) Describe the sense organs of Ascaris. 8  
 (b) Give an account of physiological adaptations of Helminth parasite. 5  
 7. Explain the Reproductive system of Fasciola. 13

#### UNIT-IV

8. (a) Describe the digestive system of Earthworm. 9  
 (b) Discuss the economic importance of Earthworm. 4  
 9. Explain the following :  
 (a) Septal Nephridium 5  
 (b) Apertures of Earthworm. 5  
 (c) Adaptations for Burrowing in Earthworm. 3