

2012  
B.A./B.Sc. (General) First Semester  
Zoology

Paper - II: Biodiversity and Cell Biology – II (ZOO-102)

Time allowed: 3 Hours

Max. Marks: 36

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit. Illustrate your answer with suitable diagrams.

x-x-x

I. Define/Give brief explanation of the following :-

- a) Prostomium
- b) Euchromatin
- c) Intestinal caecum
- d) Chromatid
- e) Oncosphere
- f) Nucleolus
- g) Scolex
- h) Interferon

(8x1)

**UNIT - I**

II. Explain the various larval stages of FASCIOLA HEPATICA.

(7)

III. a) Enlist various parasitic adaptations in Helminths.

b) What are flame cells? Explain its structure and functions with the help of a well labelled diagram.

(4,3)

**UNIT - II**

IV. Explain the different types of Nephridia in PHERETIMA.

(7)

V. a) Make a well labelled sketch of T.S. of nerve cord of Earthworm.

b) Classify upto order with ecological note of the following:-

i) *Tubifex*

ii) *Aphrodite*

(3,4)

**UNIT - III**

VI. a) Describe polymorphism in lysosome.

b) Enlist important enzymes of lysosome.

c) Explain the various functions of lysosome

(3,2,2)

P.T.O.

(2)

- VII. a) Differentiate between Prokaryotic and Eukaryotic Ribosomes.  
b) Explain the structure of Centriole. (3.4)

**UNIT - IV**

- VIII. Give an account of structure and functions of nucleus. (7)
- IX. a) Give an elementary idea of different types of cancer.  
b) Differentiate between B-cells and T-cells (4.3)

X-X-X