

2115

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

Paper - I (ZOO-101): Biodiversity and Cell Biology - I

Time allowed: 3 Hours

Max. Marks: 36

*NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

x-x-x

I. Explain briefly:-

- a) Trophozoite
- b) Contractile vacuole
- c) Kappa particles
- d) Encystment
- e) SEM & TEM
- f) Euchromatin
- g) Osmosis
- h) Amoebic dysentery

(8x1)

**UNIT - I**

II. Describe the part of Life- Cycle of *Plasmodium* in Man.

(7)

III. Write notes -

- a) Reproduction in *Paramecium*
- b) Polymorphic forms of *Trypanosoma* and its transmission

(2x3½)

**UNIT - II**

IV. Discuss 'Alternation of Generations' in *Obelia*.

(7)

V. Write notes on:-

- a) Syconoid type of canal system
- b) Ecology and economic importance of *Euplectella* & *Zooanthus*

(4+3)

**UNIT - III**

VI. Describe the principle and applications of light microscopy.

(7)

VII. a) Explain the process and importance of fixation in cell biology.

b) What is double staining?

(5+ 2)

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Sub. Code: 17054

(2)

UNIT - IV

VIII. Write notes on:-

a) Structure of Mitochondria

b) Rough and smooth Endoplasmic Reticulum

(2x3½)

IX. Discuss in detail the structure of Golgi Complex giving suitable diagrams and list its important functions in the cell.

(7)

x-x-x