

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 1st Semester

(2122)

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. I which is compulsory and select one question from each unit. Draw neat and well labelled diagrams wherever required.

I. Describe the following :

- (a) Morphology of trophozoite of *Giardia*
- (b) Short note on *Balantidium*
- (c) Scleroblasts
- (d) Write a short note on *Physalia*
- (e) SEM
- (f) Double staining
- (g) Active Transport
- (h) Exocytosis

8×1

UNIT—I

- II. (a) Describe the erythrocytic life cycle of *Plasmodium vivax*.
Give suitable diagram.

3½

- (b) Give diagrammatic representation of life cycle and pathogenicity of the parasite causing amoebic dysentery.

3½

- III. (a) Describe the process of osmoregulation in *Paramecium*.

3½

- (b) Describe the mechanism of locomotion in *Amoeba*.

3½

UNIT—II

- IV. (a) Describe the canal system in *Scypha*.

3½

- (b) Discuss polymorphism in *Obelia* colony.

3½

- V. (a) Discuss the methods of reproduction in *Scypha*.

3½

- (b) Give in detail the characters of Phylum Coelenterata.

3½

UNIT—III

- VI. (a) Give the principle and applications of Phase contrast microscope.

3½

- (b) Give an account of fixatives used in histological and histochemical studies.

3½

- VII. (a) Differentiate between prokaryotic and eukaryotic cells.

3½

- (b) Explain the Fluid Mosaic Model of plasma membrane.

3½

UNIT—IV

- VIII. (a) Explain the structure and functions of endoplasmic reticulum.

3½

- (b) Explain the role of mitochondria in cell respiration.

3½

- IX. (a) Explain the structure and functions of Golgi complex.

3½

- (b) Give an account of structure and function of Mitochondrial

DNA .

3½