

Roll No.

Total Pages : 03

GSE/D-21

799

ZOOLOGY

Paper : I

Life and Diversity from Protozoa to Porifera
and Cell Biology–I

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory.
Attempt *two* questions from Section A and *two* from
Section B. Draw well labelled diagrams wherever they
are required.

1. (a) What is Exflagellation ?
- (b) Name the *four* forms of *Trypanosoma*.
- (c) What is the basis of classification in Sponges ?
- (d) Name the *two* types of scleroblast cells.
- (e) Why does *Scypha* always show cross-fertilization ?
- (f) Define Tonicity.
- (g) What is Emeiocytois ?
- (h) “Golgi body has a definite polarity.” Discuss the statement.
- (i) What are P and A-sites of ribosomes ?
- (j) Name the *two* types of microtubules. **1×10=10**

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Section A

2. (a) Give an account of the life-cycle of *Plasmodium vivax* in a man. 5½
(b) A brief note on pathogenicity and preventive measures of *Giardia intestinalis*. 2
3. (a) Give an account of host, mode of infection and life-cycle of *Trypanosoma gambiense*. 5½
(b) Differentiate three pathogenic species of *Trypanosoma* in man. 2
4. (a) Describe briefly the development of Monoaxon and Triaxon spicules in sponges. 3
(b) Draw V.S. of a part of *Scypha* showing its histology and canal system. 4½
5. What is Canal System ? Describe different types of canal systems found in sponges. Also give its physiological significance. 7½

Section B

6. (a) Explain the fluid mosaic model with the help of a suitable diagram. 5
(b) Define endocytosis. Enumerate the types of endocytosis. 2½
7. Explain the polymorphism and various functions of the Lysosome. 7½

8. (a) Describe different views regarding biogenesis of Mitochondria. **5**
- (b) Write peculiar features of mitochondrial DNA. **2½**
9. (a) Describe the ultrastructure of a flagellum. **4½**
- (b) Describe the structure of centriole. **3**