

CELL BIOLOGY AND BIODIVERSITY - I

Semester-I

Time Allowed : 3 Hours]

Note : The candidates are required to attempt *two* questions each from Section A and B carrying 7½ marks each and the entire Section C consisting of 10 short answer type questions carrying 2 marks each.

[Maximum Marks : 50

- Section - A**
1. Write down the structure and function of two types of Endoplasmic Reticulum. 7½
 2. (a) Explain the various functions of cell membrane. 2½
(b) Differentiate the Light Microscope from Electron Microscope. 5
 3. (a) Describe the structure of Amoeba with suitable diagram. 4
(b) Explain the process of Binary Fission and Multiple Fission in Amoeba. 3½
 4. Write classification upto order of any *three* of the following organisms. Also write a brief ecological note on them : 3×2½=7

(a) Entamoeba	(b) Noctiluca
(c) Opalina	(d) Trypanosoma
(e) Hyalonema	(f) Grantia

- Section - B**
5. Write the help of diagram describe the structure of Polyp and Medusa or Obelia. 7½
 6. Explain the life history of *Taenia Solium*. 7½
 7. Make a well labelled diagram showing the reproductive system of Earthworm. 7½
 8. Classify any *five* of the following organisms upto orders : 1½×5=7½

(a) Aurelia	(b) Hydra
(c) Plumularia	(d) Obelia
(e) Polynoe	(d) Ascaris
(e) Chaetopterus	(h) Aphrodite
(i) Dugesia	(j) Schistosoma.

- Section - C**
9. Write short notes on the following :

(a) Exocytosis	(b) Osmoregulation
(c) Conguaction	(d) Flame Cells
(e) Osmosis	(f) Difference between Male Ascaris and Female Ascaris
(g) Lysosomes	(h) Active Transport
 - (i) Incurrent Canals in Obelia
 - (j) Write down Zoological names of the following organisms :

(a) Liver Fluke	(b) Protuguese man of war.
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2×10=20