सत्यं विजयताम्

WEST BENGAL STATE UNIVERSITY

B.Sc. Major 1st Semester Examination, 2023-24

ZOODSC101T-ZOOLOGY (MAJOR)

Time Allotted: 2 Hours | Full Marks: 50

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

1. Answer any ***nine*** questions from the following: 2×9 = 18

(a) What is contractile vacuole? State its function.

(b) What do you mean by metachronal wave of the Cilia?

(c) State the functions of gonozooid.

(d) What do you mean by plasmotomy? Where is it found?

(e) What is zooxanthellae?

(f) Distinguish between pinacoderm and choanoderm.

(g) Write down the pathogenicity of *Ascaris* sp.

(h) What is zoonosis?

(i) Differentiate between polyp and medusa.

(j) Why ctenophores are called Comb jelly?

(k) Distinguish between apopyl and prosopyl.

(l) What is colloblast cell?

2. Answer any ***four*** questions from the following: 3×4 = 12

(a) Summarise the importance of conjugation in *Paramoecium* sp.

(b) Compare between Asconoid and Syconoid canal system in Sponges.

(c) What are the factors responsible for the formation of coral reef?

(d) Mention adaptive features of *Fasciola hepatica.*

(e) What is polymorphism? Why does polymorphism considered to be an advanced feature in Cnidarians?

(f) State the development of *Taenia* sp. in intermediate host.

(g) Mention three unique features of phylum Ctenophora.

3. Answer any ***four*** from the following: $5\times4=20$

(a) Name the phylum and class of the following animals: $(\frac{1}{2}+\frac{1}{2})\times5$

(i) Sea Pen

(ii) Sea Anemone

(iii) *Taenia* sp.

(iv) *Spongilla* sp.

(v) *Euglena* sp.

(b) To which phylum does the following structures belong and mention one function of each. $(\frac{1}{2}+\frac{1}{2})\times5$

(i) Renette Cell

(ii) Monoaxon Spicule

(iii) Nematocyst

(iv) Comb plate

(v) Pseudopodia.

(c) State the structural differences between the promastigote and mastigote stages of *Leishmania donovani* with suitable diagram. Write a note on the pathogenicity of *L. donovani*. 3+2

(d) Define definitive host and intermediate host. Elaborate significance of definitive and intermediate host in *Wuchereria bancrofti* infection with example. 2+3

(e) Briefly describe ultrastructure of flagellum with suitable diagram. 3+2

(f) "The term metagenesis is more suitable than alternation of generation in case of Cnidarians". — Explain. What is velum? 4+1

(g) Write short notes on the following: $2\frac{1}{2}\times2=5$

(i) Life cycle of *Ascaris lumbricoides*

(ii) Erythrocytic schizogony of *Plasmodium vivax*.

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