



'সমানো মন্ত্র: সমিতি: সমানী'

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Major 1st Semester Examination, 2023

**UZOOMAJ11001-ZOOLOGY**

**BIOLOGY OF NON CHORDATES**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is atoll?
  - (b) What is botryoidal tissue?
  - (c) Write two differences between protostomia and deuterostomia.
  - (d) What is apopyle?
  - (e) Write one major characteristic of phylum Sarcomastigophora.
  - (f) What is flame cell?
  - (g) What is notopodium?
  - (h) What is madreporite?
2. Answer any **three** questions from the following: 5×3 = 15
- (a) Describe asexual life cycle in *Plasmodium vivax*.
  - (b) Write about syconoid canal system.
  - (c) Write a short note on the locomotion of *Amoeba*.
  - (d) Classify Phylum Platyhelminthes upto classes with examples.
  - (e) Briefly discuss the affinities of Xiphosura.
3. Answer any **two** questions from the following: 10×2 = 20
- (a) What is conjugation? Elucidate the process as observed in *Paramoecium* sp. 2+8
  - (b) Write the salient features of the Phylum Annelida. Write the characteristic feature of the classes to which the following organism belongs to: *Chaetopterus* sp., *Hirudinaria* sp. and *Pheretima* sp. Write short note on parapodium. 3+4  $\frac{1}{2}$  +2  $\frac{1}{2}$
  - (c) How human is infected by *Ascaris lumbricoides*? Discuss about the migration of the larva of *Ascaris* within the host. Write the differences between male and female *Ascaris*. 2+6+2
  - (d) Describe the double respiration in *Pila*, with suitable diagram. State the function of statocyst. 8+2

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