

B.Sc. 1st Semester (Hons.) Examination, 2020 (CBCS)

Subject: Zoology

Paper: CC-1 (Non-Chordates)

Full Marks: 40

Time: 2 Hrs

Candidates are required to give the answer in their own words as far as practicable.

*Answer any **eight** questions of the following:*

$5 \times 8 = 40$

1. Briefly describe the Whittaker's five kingdom concept of classification.
2. Describe the polymorphism of polypoid stage in Hydrozoan Cnidaria.
3. Write in brief the pathogenicity and control measures of any digenetic trematode parasite included in the syllabus.
4. Compare and contrast between the syconoid and leuconoid canal system. State the fate of a sponge if the flagella of all choanocytes/collar cells become motionless and justify your answer.
5. Distinguish between biradial and pentaradial symmetry with examples. Comment on the evolutionary significance of segmentation in animals.
6. Elaborate the phase of larval migration in the life history of *Ascaris lumbricoides* using a flow chart.
7. Briefly explain when and why a schizont of *Plasmodium* enters into gamogony. How does the malarial parasite cross the peritrophic matrix of the mid gut of *Anopheles*?
8. During conjugation of *Paramoecium*, the process occurs between two opposite syngens. Why and how does the choice occur? Explain.
9. Case 1: A pathologist made a blood smear from a person, infected with *Wuchereria bancrofti*, at 12.00 PM and reported microfilariae in the blood smear.
Case 2: Another pathologist drawn the same person's blood at 12.00 AM to make a smear and observed no microfilariae in blood.
Do you agree that both reports are correct? Give justification in favour of your answer.
10. Explain why *Amoeba*, *Monocystis* and *Balantidium* are placed in different phyla but under the same sub-kingdom.