

B.Sc. 1st Semester (Honours) Examination, 2019 (CBCS)**Subject : Zoology****Paper : CC-I****Time: 2 Hours****Full Marks: 40***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words
as far as practicable.***Group-A**

1. Answer *any five* questions from the following: 2×5=10
- What are bladder worm and measly pork?
 - Define lectotype and topotype.
 - State the significance of classification.
 - Compare cnidoblast with colloblast cell.
 - Identify me:
 - I am a larval form
 - My body is covered with cilia
 - I have apical gland, short retractile head papilla
 - After hatching, I search my host snail *Lymnaea*.
 - Give two differences between autogamy and endomixis.
 - Explain two important features of Rhabditi form larva of *Ascaris* sp.
 - After entry into human blood, sporozoite of *Plasmodium vivax* entered only in hepatic cells although it is exposed to blood cells first. Explain the specificity.

Group-BAnswer *any two* questions from the following: 5×2=10

- Mention the names of different types of spicules that occur in sponges. Describe any two of the spicules. 2+3=5
- Describe the structure of microfilariae of *Wuchereria bancrofti*. How would you account for its periodicity? Write the points of differentiation between male and female *Wuchereria* sp. 3+1+1=5
- Write the names of five kingdom proposed by Whittaker. Mention two characters of any three kingdoms. Specify two major mistakes of Whittaker's five kingdom concept. 1+3+1=5
- How does metagenesis differ from alternation of generation? Describe metagenesis process in *Obelia*. 1+4=5

Group-C

Answer any two questions from the following:

10×2=20

6. Determine the systematic position of the following taxon with characters at each stage as per syllabus (*any five*): 2×5=10
- Dugasia* (upto class)
 - Ancylostoma* (upto class)
 - Velella* (upto order)
 - Spongilla* (upto order)
 - Polystomella* (upto phylum)
 - Monocystis* (upto phylum)
 - Hydra* (upto order)
7. Discuss the process of conjugation in *Paramoecium* sp. with diagram. What are the factors and conditions governing conjugation? Mention the significance of conjugation. 4+2+2+2=10
8. Discuss the erythrocytic schizogony with diagram. Under which condition, the schizont undergoes gamogony instead of erythrocytic schizogony? What is exflagellation? (6+1)+2+1=10
9. With a labelled diagram, describe the ultrastructure of a flagellum. Discuss with a flow diagram, molecular mechanism of pseudopodial locomotion. (1+1+4)+4=10

Group-B

Answer any two questions from the following:

2×5=10

- Mention the names of different types of spines that occur in sponges. Describe any two of the spines. 2+3=5
- Describe the structure of nucleolus of *Wuchereria bancrofti*. How would you account for its periodicity? Write the points of differentiation between male and female *Wuchereria* sp. 2+1+3=6
- Write the names of five kingdoms proposed by Whittaker. Mention two characters of any three kingdoms. Specify two major mistakes of Whittaker's five kingdom concept. 1+3+4=8
- How does meiosis differ from mitosis of eukaryotes? Describe meiosis process in *Ocellularia*. 1+4=5

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