

B.Sc. 5th Semester (Honours) Examination, 2022 (CBCS)

Subject : Zoology

Course : DSE-2(T3)

(Parasitology)

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
- (a) What is an epiparasite?
 - (b) Mention the difference between a parasite and a parasitoid.
 - (c) What do you mean by an accidental host? Give an example.
 - (d) What is PKDL?
 - (e) Distinguish between vector and carrier.
 - (f) What is moulting pouch? Where is it found?
 - (g) What is Zoonosis? Give an example.
 - (h) Differentiate between lymphangitis and lymphadenitis.

Group-B

2. Answer *any two* questions from the following: 5×2=10
- (a) What do you mean by Dum-Dum fever? Distinguish between Amastigote and Promastigote forms of *Leishmania donovani*. Comment on the clinical features of leishmaniasis. 1+2+2=5
 - (b) State the differences between Argasidae and Ixodidae parasites. 5
 - (c) Mention the sexual dimorphism in Hook worm. Briefly describe its pathogenicity. 2+3=5
 - (d) Give the scientific name of Cookie Cutter shark. Why is it called cookie cutter? Why is this shark considered as parasite? 1+1+3=5

Group-C

3. Answer any two questions from the following:

10×2=20

- (a) Describe the life cycle of *Giardia intestinalis* with suitable diagram. Briefly describe its pathogenicity, diagnosis and preventive measures. 5+2+1+2=10
- (b) With suitable sketches describe the life cycle of blood fluke. Mention the pathogenicity and diagnosis of schistosomiasis. What is swimmer's itch? 5+2+2+1=10
- (c) Delineate the biology, medical importance and control measures of *Sarcoptes*. 5+3+2=10
- (d) Describe briefly the morphology of microfilaria of *Wuchereria bancrofti*. Describe the developmental stages of microfilaria in mosquito. Mention the pathogenicity of wuchereriosis. Mention the symptoms of Loeffler's Syndrome. 3+4+2+1=10

B.Sc. 5th Semester (Honours) Examination, 2022 (CBCS)**Subject : Zoology****Paper : DSE-2(T4)****(Biology of Insects)****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
- Compare between mechanical and biological vectors.
 - Differentiate between 'Apolysis' and 'Ecdysis' with examples.
 - Mention the different types of veins present in the wings of a typical insect.
 - Mention two major insect pests of paddy (give scientific names).
 - Define Social Insects with example.
 - Distinguish between the 'Plumose' and 'Pilose' type of antennae with examples.
 - What are 'Corpora Cardiaca' and 'Corpora Allata'?
 - Mention the scientific names of the vectors responsible for the spread of 'Dengue' and 'Chikungunya' virus in humans.

Group-B

2. Answer *any two* questions from the following: 5×2=10
- Describe the roles of houseflies as vectors. 5
 - Write down the characteristic features of the insect orders Hymenoptera and Coleoptera with examples (give scientific names). 2½+2½=5
 - Write short notes on: 2½+2½=5
 - 'Trophallaxis' in bees
 - Malpighian tubules
 - Describe briefly the typical ovipositor in an insect. What are 'Styliform appendages'? 3+2=5

Group-C

3. Answer *any two* questions from the following: 10×2=20
- Define Allelochemicals. Mention how allelochemicals can alter insect behaviour. Make a note on selection of host plant by phytophagous insect. 2+4+4=10
 - Describe briefly the structure of a typical insect leg with proper diagram. Briefly state the male reproductive system of an insect with diagram. 5+5=10

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- (c) Mention few reasons for the adaptive success of insects on the Earth. Describe the structure of insect photoreceptor and mention its functional mechanism. 4+(3+3)=10
- (d) Distinguish between holometabolus and hemimetabolus insects. Give one example of each. Narrate the endocrine control of metamorphosis in insect. 2+1+7=10