

**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:  $2 \times 5 = 10$

- (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:  $5 \times 2 = 10$

- (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:  $10 \times 2 = 20$
- (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 wuchereriasis. Mention the symptoms of Loffer's Syndrome.  $3+4+2+1=10$
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**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:  $2 \times 5 = 10$
- (a) Compare between mechanical and biological vectors.
  - (b) Differentiate between 'Apolysis' and 'Ecdysis' with examples.
  - (c) Mention the different types of veins present in the wings of a typical insect.
  - (d) Mention two major insect pests of paddy (give scientific names).
  - (e) Define Social Insects with example.
  - (f) Distinguish between the 'Plumose' and 'Pilose' type of antennae with examples.
  - (g) What are 'Corpora Cardiaca' and 'Corpora Allata'?
  - (h) 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:  $5 \times 2 = 10$
- (a) Describe the roles of houseflies as vectors. 5
  - (b) Write down the characteristics features of the insect orders Hymenoptera and Coleoptera with examples (give scientific names).  $2\frac{1}{2} + 2\frac{1}{2} = 5$
  - (c) Write short notes on:
    - (i) 'Trophallaxis' in bees
    - (ii) Malpighian tubules $2\frac{1}{2} + 2\frac{1}{2} = 5$
  - (d) 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:  $10 \times 2 = 20$
- (a) Define Allelochemicals. Mention how allelochemicals can alter insect behaviour. Make a note on selection of host plant by phytophagous insect.  $2+4+4=10$
  - (b) 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 it's functional mechanism.  $4+(3+3)=10$
- (d) Distinguish between holometabolous and hemimetabolous insects. Give one example of each. Narrate the endocrine control of metamorphosis in insect.  $2+1+7=10$
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