

**U.G. 6th Semester Examination - 2022**

**ZOOLOGY**

**[PROGRAMME]**

**Discipline Specific Elective (DSE)**

**Course Code : ZOOL-G-DSE-T-03&04**

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**Answer all the questions from selected Option.**

**OPTION-A**

**ZOOL-G-DSE-T-03**

1. Answer any **five** questions : 2×5=10
- Distinguish between ectoparasite and endoparasite.
  - What is social parasitism?
  - What is hyperplasia? Give example.
  - What are the diseases caused by ticks?
  - What is microfilaria?
  - Name the larval stages of *Schistosoma haematobium*.

- In which parasitic disease penta-valent antimony compounds are used as drug of choice? Mention the names of two such penta-valent antimony compounds.
- What is Loeffler's syndrome? Mention its symptoms.

2. Answer any **two** questions: 5×2=10
- Distinguish between amastigote and promastigote forms of *Leishmania donovani*. Describe the symptoms of visceral leishmaniasis. 3+2
  - Discuss effects of host on parasite. 5
  - Describe briefly the life cycle of lice (*Pediculus*). Comment on the health hazards resulted from infestation of lice. 3+2
  - Which animals are considered as reservoirs of *Trypanosoma gambiense*? Discuss the disease caused by *Trypanosoma gambiense* and comment on its treatment measures. 1+2+2
3. Answer any **two** questions: 10×2=20
- Describe the life cycle of *Ancylostoma duodenale*. Discuss the prophylaxis and treatment measures of the infection caused by this parasite. 6+2+2

b) Differentiate between primary and secondary host of a parasite. Distinguish between hard tick and soft tick. Discuss the role of fleas as vector. Explain the pathogenicity of *Schistosoma haematobium*.

2+2+3+3

c) Write down the scientific name of common vampire bat. Discuss the unique physical adaptations evolved in vampire bats for their feeding behavior. Describe in short the social behavior of vampire bats.

1+6+3

d) Describe the life cycle of *Trypanosoma gambiense* in tsetse fly with diagram. What is the infective stage of *Ascaris lumbricoides*? Describe the pathogenicity of *Ascaris lumbricoides*.

6+1+3

**OPTION-B**  
**ZOOL-G-DSE-T-04**

1. Answer any **five** questions: 2×5=10

- a) What is raptorial leg and where it is found?
- b) Define ecdysis and exuvia.
- c) What are halteres?
- d) What is gizzard? State its function.
- e) What are the components of central nervous system in insects?
- f) Define ovoviviparity in insects with one example.
- g) Define Integrated Pest Management (IPM).
- h) What is pheromone?

2. Answer any **two** questions: 5×2=10

- a) Illustrate the importance of houseflies as vector. 5
- b) Explain the significance of plant alkaloids in host plant protection. 5
- c) Describe termitarium with proper diagram. 5
- d) Differentiate connectives and commisures. Depending on structure describe different types of neurone in insects. 2+3

3. Answer any **two** questions:  $10 \times 2 = 20$
- a) Describe female reproductive system of insect with proper diagram. Write a short note on polyembryony in insects.  $7+3$
  - b) With proper diagram describe different types of antennae found in insects. What is siphoning mouthparts? Where it is found?  $7+2+1$
  - c) Discuss different types of wing coupling in insects. Write four important characteristic features and two examples of order isoptera.  $7+(2+1)$
  - d) How coordinated action of moulting hormone and juvenile hormone control metamorphosis in insects? Distinguish exopterygota and endopterygota.  $8+2$
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