

U.G. 6th Semester Examination - 2021

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
 - a) What are parasitism and hyperparasitism?
 - b) Define parasitoid.
 - c) Write the scientific names of three species of blood eating bats.
 - d) What is amastigote form of *Trypanosoma gambiense*?
 - e) Distinguish between male and female *Ascaris lumbricoides*.

- f) Mention the families to which soft ticks and hard ticks belong.
- g) Briefly comment on the treatment protocol of infection resulted from *Ancylostoma duodenale*.
- h) As vector fleas are responsible for spreading of which diseases?

2. Answer any **two** questions : 5×2=10
 - a) Briefly discuss the impact of vampire bats on public health. Comment on the control of vampire bats. 3+2
 - b) Describe the different types of ticks depending on its host. Briefly explain the role of ticks on the spreading of diseases. 2+3
 - c) Write a short note on diseases spread by mosquitoes as vector. 5
 - d) Describe the life cycle of *Schistosoma haematobium*. 5
3. Answer any **two** questions: 10×2=20
 - a) Describe in detail the effects of parasite on host. Define vector. Discuss the pathogenicity of *Trypanosoma gambiense*. 7+1+2
 - b) What is elephantiasis? Define primary and secondary host of a parasite. Describe the life

cycle of *Wuchereria bancrofti* in its primary host. Discuss the symptoms and treatments of the disease caused by *Wuchereria bancrofti*.

1+2+4+(2+1)

c) Describe the life cycle of *Ascaris lumbricoides*. Comment on the prophylaxis and treatment measures of the infection caused by this parasite.

6+2+2

d) Delineate the life cycle of *Leishmania donovani*. Discuss its pathogenicity and control measures.

6+2+2

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

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

a) What are the different types of neurons found in insects?

b) Define pest with one example.

c) What do you mean by hemimetabolous development in insects?

d) What is spermatheca?

e) Give four characters of class Insecta.

f) What is protocerebrum?

g) Distinguish between Apterygota and Pterygota with example.

h) What is termitarium?

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

a) Briefly illustrate the hind gut of an insect. 5

b) Discuss the functions of the hormones secreted from prothoracic gland and corpora allata. 3+2

c) Describe the life cycle of *Scirpophaga incertulas*. 5

d) Delineate in brief the different modifications of insect legs. 5

3. Answer any **two** questions: $10 \times 2 = 20$

a) Discuss briefly the haustellate mouth parts.
Describe different types of antennae in insects.

3+7

b) With proper diagram describe the structure of trachea. Write down the mechanism of tracheal respiration.

6+4

c) What is vector? Write a short note on importance of mosquito as vector. What are allelochemicals? Discuss the importance of Tannins in host plant protection.

1+5+1+3

d) Write five important characteristic features and two examples for each of the following insect orders:

2×5

- i) Lepidoptera
 - ii) Hemiptera
 - iii) Hymenoptera
 - iv) Orthoptera
 - v) Diptera
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