



B.Sc./6th Sem (H)/ZOO/25(CBCS)

2025

6th Semester Examination

ZOOLOGY (Honours)

Paper : DSE 3-T

[CBCS]

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

[Parasitology]

Group - A

Answer any *five* questions : $2 \times 5 = 10$

1. Name the causative agents that cause sleeping sickness and kala-azar.
2. What is the mode of transmission of *Giardia intestinalis*.
3. Differentiate a biological vector and a mechanical vector.
4. Write down the definitive and intermediate host of *Schistosoma haematobium*.

P.T.O.

(2)



5. Name two common pathogens transmitted by vampire bats.
6. State the symptoms of Kala-azar.
7. What is hyperparasitism? Give example. 1+1
8. Specify two anaerobic adaptations of the parasitic helminths. 1+1

Group - B

Answer any **four** questions : 5×4=20

9. Describe the morphology and life cycle of *Wuchereria bancrofti*.
10. Explain the role of *Brugia malayi* in causing lymphatic filariasis. Mention its transmission.
11. Discuss epidemiology and prophylaxis of *Leishmania donovani* infection.
12. Mention the intermediate and definitive hosts of *Taenia saginata*. Describe the structure of scolex. What is cysticercus bovis? 2+2+1
13. Draw and describe the promastigote stage of *Leishmania donovani*.
14. Comment on the mechanism of transmission of *Yersinia pestis*. What is the incubation period of the bacteria after a flea's bite? 4+1

(3)

Group - C

Answer any *one* question : $10 \times 1 = 10$

15. Discuss biological importance and control measures of following arthropods :

(a) *Ixodes*

(b) *Sarcoptes*

16. Illustrate the life cycle of *Schistosoma haematobium* (diagrammatic representation). Give one example for each type. Comment on the treatment and control measures against schistosomiasis. What are viviparous and oviparous nematodes? $4+3+3$

P.T.O.

(4)

[Endocrinology]

Group - A

Answer any *five* questions : $2 \times 5 = 10$

1. Define temporary endocrine gland with an example.
2. What is PCOS?
3. Name the appropriate cellular / nuclei source of the following hormones : STH, LH, Oxytocin and vasopressin.
4. Why is colloid an important component of the follicular cell of thyroid gland?
5. What is corpus albicans? Does it play any role in gestation?
6. Write down the full form and appreciation of RIA?
7. State the functions of PTH and calcitonin.
8. Schematically represent hypothalamo-hypophyseal portal system.

Group - B

Answer any *four* questions : $5 \times 4 = 20$

9. Describe the ultrastructure of mammalian thyroid gland.
10. "Pituitary is the master of endocrine orchestra." Briefly discuss.

(5)

11. What do you mean by second messenger in hormone action? State the role of cAMP and IP_3 as second messenger. 1+4
12. Describe the hormonal regulation of menstrual cycle. Comment on the uterine and ovarian changes during this cycle. 3+2
13. What is fight or flight response? State the important functions of Leydig's cells and Sertoli cells. 2+3
14. Write the hypothalamic releasing hormones and release inhibiting hormones. State the advantages of RIA over ELISA. 3+2

Group - C

Answer any *one* question : 10×1=10

15. Describe various steps and hormonal regulation of parturition. Write down the differences between estrous cycle and menstrual cycle. 7+3
 16. Describe the mechanism of steroid hormone action in brief. Write short notes on (i) Graves' disease (ii) Diabetes mellitus. 4+3+3
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