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B.Sc./6th Sem (H)/ZOOL/23(CBCS)

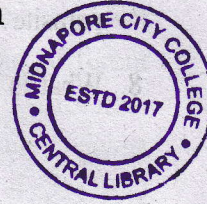
2023

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. What is phoresis? Give example. 1+1
2. Why should *Trypanosoma gambiense* be classified as a salivaria? 2
3. What is Ascaris pneumonitis? 2
4. What is epizootic disease? Give example. 1+1
5. State the causative agents of human scabies and babesiosis. 1+1

P.T.O.

( 2 )

6. Mention four adaptations of the parasitic helminths.

4×½

7. Why the cookiecutter shark can be classified as a parasite? 2

8. What is hyperparasitism? Give example. 1+1

**Group - B**

Answer any *four* questions : 5×4=20

9. Comment on the mechanism by which *Xenopsylla cheopis* transmits *Yersinia pestis*. State the incubation period of the bacteria after a flea's bite. 4+1

10. Draw and describe the amastigote stage of *Leishmania donovani*. State the symptoms of Kala-azar? 3+2

11. State the scientific names of two common bed bugs. Mention the symptoms observed in people chronically exposed to bed bugs. Name a drug that can be used to treat infection of hook worm. 2+2+1

12. Mention the vector and causative agent of the Lyme disease. Mention the symptoms associated with Lyme disease. 1+1+3

13. Illustrate the life cycle of *Giardia intestinalis*. Mention a drug that may be used to treat giardiasis. 4+1

14. Name one intermediate host of *Wuchereria bancrofti*. Comment on the pathogenicity of lymphatic filariasis. 1+4

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**Group - C**

Answer any *one* question : 10×1=10

15. Illustrate the life cycle of *Schistosoma haematobium* (diagrammatic representation). Mention the different phases of schistosomiasis with associated symptoms. Comment on the treatment and control measures against schistosomiasis. 4+3+(1+2)

16. Illustrate the life cycle of *Trichinella spiralis* (diagrammatic representation). Comment on the pathogenicity of the worm and mention the name of two drugs that can be administered to treat trichinosis. 4+4+2



( 4 )

OR

[Endocrinology]

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

1. Name the cellular source of calcitonin. What is the main function of calcitonin?
2. Mention the name and the major function of the hormone secreted by the delta cells of pancreas.
3. Name the predominant glucocorticoid hormone of our body. How does it raise blood glucose level?
4. What are the three circulating androgens of mammalian blood and which is predominant among those three?
5. State the functions of vasopressin.
6. What is RIA?
7. What are antithyroid agents? Give an example.
8. Define and exemplify paracrine hormones.

**Group - B**

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

9. What is the basic difference between type-1 and type-2 diabetes mellitus? What do you mean by the terms (i) hyperglycemia, (ii) polyphagia, (iii) polydipsia, (iv) polyuria, (v) glycosuria and (vi) glucosuria?  $2+3$

( 5 )



10. Give an illustrated account of hypothalamo-hypophysal portal system? State its functional significance.  $4+1$
11. Describe the ultrastructure of thyroid gland.  $5$
12. How does melatonin maintain the sleep-wake cycle of our body? What is 'love hormone'?  $4+1$
13. Write a note on hormonal control of parturition.  $5$
14. Describe the mechanism of non-steroidal hormone, that use cAMP as a second messenger.  $5$

**Group - C**

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

15. Describe the ultrastructure of pineal gland. What is pituitary? Comment on the feedback regulation of pituitary gonadotropin secretion.  $6+1+3$
16. Distinguish between estrous cycle and menstrual cycle. Define and exemplify monoestrous, diestrous and polyestrous animals. Give an account of hormonal control of estrous cycle.  $3+2+5$