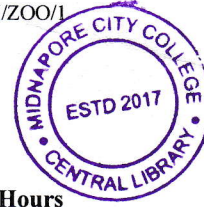


PG CBCS  
M.Sc. Semester- II Examination, 2022  
DEPARTMENT OF ZOOLOGY  
PAPER: ZOO 203



Full Marks: 40

Time: 2 Hours

**Write the answer for each unit in separate sheet**

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

**ZOO 203.1: MOLECULAR BIOLOGY**

**Marks: 20**

**GROUP-A**

1. Answer any **two** questions: 2×2=4
- a) What is wobble hypothesis?
  - b) Differentiate between template strand or the antisense strand and coding strand or the sense strand?
  - c) Why  $lac^d/lac^+$  partial diploid are produced constitutively even in the presence of normal repressor?
  - d) State the function of RNase H?

**GROUP-B**

2. Answer any **two** questions: 2×4=8
- a) Differentiate prokaryotic and eukaryotic promoters.
  - b) What are the three enzymatic activities for DNA polymerase I?
  - c) How might the concentration of glucose in the medium where *E. coli* is growing regulate the intracellular level of cyclic AMP?
  - d) Outline the process of aminoacyl-tRNA formation in *E. coli* translation.

**GROUP-C**

3. Answer any **one** question: 1×8=8
- a) Give a detailed account on prokaryotic transcription termination mechanisms with suitable diagram and factors involved in it.
  - b) How human telomere is regulated?

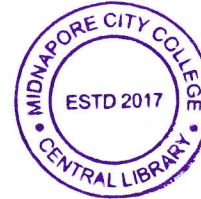
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(2)

**ZOO 203.2: PARASITOLOGY****Marks: 20****GROUP-A****1. Answer any two questions:**

- a) What is glycocalyx? Mention its function.
- b) What do you mean by relapses and recrudescence in malaria?
- c) What is the difference between obligatory and facultative parasite.
- d) What are the clinical manifestations of schistosomiasis.

2×2=4

**GROUP-B****2. Answer any two questions:**

- a) Enumerate the ultrastructural features of the Trematode tegument.
- b) Distinguish between amastigote and promastigote form of *Leishmania* sp. with suitable diagram.
- c) What is giardiasis? Write down the symptoms and treatment of this disease.
- d) Define zoonosis with example. Comment on pathogenicity of lymphatic filariasis.

2×4=8

**GROUP-C****3. Answer any one question:**

- a) Discuss in brief the life cycle, pathogenicity and prophylaxis of *Paragonium* sp.

5+2+1

- b) What do you mean by cerebral malaria? Describe the asexual life cycle of the causative organism of this disease. How could we control this disease?

1+5+2

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