

C 42818

(Pages : 2)

Name.....

Reg. No.....

**SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)  
EXAMINATION, APRIL 2023**

(CBCSS)

Zoology

ZOL 2C 05—MOLECULAR BIOLOGY

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer any *four* of the following. Short Answer Type Questions. Weightage 2 :

- 1 Define Okazaki fragments.
- 2 Write a short note Transcription factor.
- 3 Write a note on the active site of ribosomes.
- 4 Differentiate Proto-oncogenes and Oncogenes.
- 5 What is the evolutionary clock ?
- 6 What are the types of transposition mechanism ?
- 7 What is gene conversion ?

(4 × 2 = 8 weightage)

II. Answer any *four* of the following. Short Essay Type Questions. Weightage 3 :

- 8 Write a detailed account of restriction enzymes.
- 9 Write the difference between prokaryotic and eukaryotic protein synthesis.
- 10 Write the features of the eukaryotic genome.
- 11 Write a note on the modification and formation of interrupted genes.
- 12 Explain the Prokaryotic genome with a diagram.
- 13 How does cancer develop and how does it differ from normal cells ?
- 14 What is genetic recombination in bacteria ? When does genetic recombination occur in bacteria ?

(4 × 3 = 12 weightage)

**Turn over**

III. Answer any *two* of the following. Long Essay Type Questions. Weightage 5 :

- 15 Write the mechanism of RNA editing.
- 16 Write the eukaryotic gene regulation.
- 17 Describe the gene transfer mechanism in bacteria and its types.
- 18 Write a brief note on Transposons in Bacteria.

(2 × 5 = 10 weightage)