

K23U 3562

Reg. No. :

Name :

III Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, November 2023
(2020 to 2022 Admissions)

CORE COURSE IN LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL
BIOLOGY

3B03ZCB : Molecular Biology

Time : 3 Hours

Max. Marks : 40

PART – A
(Short answer)

Answer **all** questions :

(6×1=6)

1. Cistron.
2. Jumping genes.
3. Nucleotide.
4. A-site of ribosome.
5. Anticodon.
6. Endonuclease.

PART – B
(Short Essay)

Answer **any 6** questions :

(6×2=12)

7. Explain central dogma of molecular biology.
8. Explain stop codons.
9. Write notes on tRNA.
10. Write notes on prokaryotic ribosome.

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11. Write notes on DNA helicase enzyme.
12. What are restriction enzymes ?
13. Explain recombinant DNA technology.
14. What is SOS response ?

**PART – C
(Essay)**

Answer **any 4** questions :

(4×3=12)

15. Explain characteristics of B-DNA.
16. Explain translocation in translation.
17. Differentiate exonuclease and endonuclease.
18. Explain features of eukaryotic genome.
19. Explain Lac-operon.
20. Write notes on enzymes involved in DNA replication.

**PART – D
(Long Essay)**

Answer **any 2** questions :

(2×5=10)

21. Briefly explain the process of transcription in prokaryotes.
 22. Write an essay on genetic code.
 23. Explain different types of cloning vectors.
 24. Explain different DNA repair systems.
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