



K22U 1569

Reg. No. :

Name :

IV Semester B.Sc. Degree CBCSS (OBE) Regular/Supplementary/
Improvement Examination, April 2022
(2019 Admission Onwards)
GENERAL AWARENESS COURSE IN MICROBIOLOGY
4A14MCB : Microbial Genetics and rDNA Technology

Time : 3 Hours

Max. Marks : 40

PART – A

Answer **all** the questions. **Each** question carries **1** mark.

(6×1=6)

1. Ti plasmid
2. ITR
3. Prophage
4. Auxotroph
5. EcoR1
6. Bt cotton.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks.

(6×2=12)

7. Antisense RNA
8. Frame shift mutation
9. PBR322
10. Mitochondrial inheritance in yeast
11. Colony hybridisation
12. Ames test
13. Cosmids
14. Chromosome theory of heredity.

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PART – C

Answer **any 4** questions. **Each** question carries **3** marks.

(4×3=12)

15. Explain different DNA repair mechanisms in bacteria.
16. Narrate the difference between lytic and lysogenic cycle.
17. Give brief account on restriction enzymes.
18. Narrate different kinds of DNA sequencing methods.
19. Give details of Mendelian laws.
20. Explain different types of mutation.

PART – D

Answer **any 2** questions. **Each** question carries **5** marks.

(2×5=10)

21. Narrate tools and strategies of rDNA technology.
 22. Explain different kinds of gene transfer mechanisms in bacteria.
 23. What is extra chromosomal genetic material ? Explain different types.
 24. Explain the term GMOs and narrate its application in society.
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