

K21U 1133

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree CBCSS (OBE) Regular Examination, April 2021  
(2019 Admission Only)

**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. Agrobacterium tumifaciens.
2. Frame shift mutation.
3. LTR.
4. Shuttle vector.
5. R plasmid.
6. Bt cotton.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(6×2=12)**

7. SOS repair.
8. Law of independent assortment.
9. PBR322.
10. Mitochondrial inheritance in yeast.
11. Recombinant vaccines.
12. Ames test.
13. Phagemids.
14. Mode of action of DNA ligases in DNA modification.

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PART – C

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

(4×3=12)

15. Blue-white selection of recombinant clones.
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 brief account on difference between genomic library and cDNA library.
20. Explain different types of mutation.

PART – D

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

(2×5=10)

21. Describe different types of plasmids and narrate its importance as a vector.
  22. Explain different kinds gene transfer mechanisms in bacteria.
  23. What is transposons ? Narrate different types and its uses.
  24. What is transgenic organisms ? Give detail account on its relevance with example.
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