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IV Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, April 2023 (2019 Admission Onwards) GENERAL AWARENESS COURSE IN MICROBIOLOGY 4A14MCB: Microbial Genetics and rDNA Technology

Time: 3 Hours Max. Marks: 40

PART - A

Answer all questions. Each question carries 1 mark.

 $(1 \times 6 = 6)$

- 1. R plasmid.
- 2. Lambda phage.
- 3. Frame shift mutation.
- 4. Linker and adapter.
- 5. Humulin.
- 6. SOS repair.

PART - B

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

 $(2\times6=12)$

- 7. Ti plasmid.
- 8. Extrachromosomal genetic material in bacteria.
- 9. Genetic exchange in bacteria by transformation.
- 10. Mitochondrial inheritance in yeast.
- 11. Nucleosome.

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- 12. Restriction endonuclease.
- 13. Expression vectors.
- 14. Gene therapy.

PART - C

Answer any 4 questions. Each question carries 3 marks.

 $(3 \times 4 = 12)$

- 15. Different types of plasmids.
- 16. Mendelian laws.
- 17. Conjugation.
- 18. Ames test.
- 19. Shuttle vector.
- 20. Blue white screening.

PART - D

Answer any 2 questions. Each question carries 5 marks.

 $(5 \times 2 = 10)$

- 21. Steps involved in rDNA technology.
- 22. DNA sequencing.
- 23. Transposons.
- 24. Lytic versus lysogenic switch of lambda phage.