QP CODE: 24027532

24027532

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, OCTOBER 2024

Third Semester

B.Sc Zoology and Industrial Microbiology Model III Double Main

Core Course - ZI3CRT07 - MICROBIAL GENETICS AND RECOMBINANT DNA TECHNOLOGY

2017 Admission Onwards

E49B7A92

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. DNA polymerase.
2. Who proposed rolling circular model of DNA replication?
3. Recombination.
4. Transformation.
5. Isolation of DNA.
6. lysozyme.
7. Restriction enzyme.
8. rDNA production.
9. Expand GMO.
10. Southern blotting.
11. Northern blotting.
12. Probe.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write short note on bacterial chromosomes.
14. Write note on Meselson and stahl experiment.
15. Give a brief account on different types of mutation.
16. Distinguish between lytic and lysogenic cycle.
17. Explain Hfr cell conjugation methods.
18. Brief account on different types of plasmids.
19. How an ideal plasmid is used as gene cloning vector?
20. Mention the role of ligases, S1 nuclease and alkaline phosphatase.
21. Explain DNA Sequencing methods.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Discuss briefly on mutation and its different types?Distinguish between spontaneous and induced mutation.
23. Enumerate Plasmids and Cosmids.
24. Explain briefly on enzymes involved in rDNAtechnology.
25. Write an essay on PCR Technique and its application.

(2×10=20)