QP CODE: 25003377

25003377

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) SPECIAL REAPPEARANCE EXAMINATIONS, FEBRUARY 2025

Fifth Semester

B.Sc Biotechnology Model III

CORE COURSE - BT5CRT12 - RECOMBINANT DNA TECHNOLOGY

2022 Admission Only

AAF89837

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Which is the first marketed recombinant product?
2. Define Isoschizomers.
3. What are the uses of adapters and linkers?
4. Comment on the general features of cloning vectors.
5. What is Cos site?
6. What is the significance of gene transfer?
7. What is Ti Plasmid?
8. Write down the principle behind recombinant selection.
9. Write down the application of colony hybridisation technique.
10. What is red-white screening?
11. Write about Glyphosate resistance in transgenic crops.
12. What is gene editing ?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Explain Polymerase Chain reaction.

14. Discuss in detail about AMV and MLV reverse transcriptases.

15. Write a note on features of pBR 322 and its screening.

16. Write a note on vectors used in plant cells with two examples.

17. Write a brief note on steps in cDNA cloning.

18. Discuss about the applications of genomic libraries.

19. Describe the importance of marker gene.

20. Write about Western blotting.

21. Explain about Chromosome Walking.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Write an essay on PCR and its applications.

23. Write an essay on the structure, features and applications of BAC and YAC.

24. Compare and contrast chemical mediated and electricity mediated transformation. Discuss the advantages and disadvantages of each one.

25. Write in detail about Bt crops and its advantages.

(2×10=20)