



QP CODE: 25019371



25019371

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) ) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY  
CHANCE EXAMINATIONS, FEBRUARY 2025**

**Fourth Semester**

B.Sc Bioinformatics Model III

**Complementary Course - BI4CMT08 - GENETIC ENGINEERING**

2017 Admission Onwards

427AACB2

Time: 3 Hours

Max. Marks : 80

**Part A**

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Name some GM crops.
2. When does the cell becomes recombinant?
3. Name any two DNA manipulative enzymes.
4. Define plasmid.
5. What is the use of cleavage patterns in vectors?
6. What are the types in SDM?
7. What is probe?
8. What are the other names of Particle gun bombardment?
9. What is the use of genomic library in genetic engineering?
10. Define cloning.
11. What are the medical applications of gene therapy?
12. What is subunit vaccine?

(10×2=20)

**Part B**

*Answer any **six** questions.*

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

13. Properties of M13 vectors.





14. Write a short note on phagemid vectors.
15. Explain the types of restriction enzymes.
16. Why is SDS PAGE used?
17. Explain biotin labelled probes.
18. What is the process of gene transfer?
19. Write a short note on calcium phosphate mediated DNA transfer.
20. What are some uses of genetic transformation?
21. Why are monoclonal antibodies important?

(6×5=30)

### Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. How are restriction enzymes named? Explain.
23. What is Sanger dideoxy sequencing? Why are ddNTPs used in sequencing?
24. How is a cDNA library made and why is it important?
25. list the applications of PCR.

(2×15=30)

