QP CODE: 25020714

25020714

Reg No : .....

Name : .....

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

Sixth Semester

CORE COURSE - BO6CRT12 - BIOTECHNOLOGY AND BIOINFORMATICS

Common for B.Sc Botany Model I, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Horticulture and Nursery Management & B.Sc Botany Model II Plant Biotechnology

2017 Admission Onwards

58996E8E

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Name a synthetic auxin.
2. What is meristem culture?
3. What is meant by soma clonal variation?
4. Expand PEG.
5. What you meant by secondary metabolites?
6. Expand Ti plasmid.
7. What is southern hybridization?
8. What is dNTP?
9. Name the enzyme used in DNA sequencing.
10. What is meant by composite databases?
11. Expand EMBL.
12. Name two sequence analysis tools.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Describe about the principle of autoclaving.

14. Mention the advantages of micropropagation.

15. Briefly explain the steps of synthetic seed production.

16. What are DNA polymerases? Write a note on different types of DNA polymerases.

17. Explain the achievements of recombinant DNA technology in medicine.

18. Explain the uses of gel documentation system.

19. Write a short essay on proteomics.

20. Differentiate PDB and PubMed.

21. Write about different softwares used in sequence alignment.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Write an essay on various techniques used in plant tissue culture.

23. Explain the different methods of in-vitro production of haploids.

24. Give an account on DNA fingerprinting. Add notes on its applications.

25. Describe applications of various genome projects.

(2×10=20)