



QP CODE: 24001175



24001175

Reg No :

Name :

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

Sixth Semester

B.Sc Botany and Biotechnology Model III Double Main

CORE COURSE - BO6CRT23 - 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

F45FFCD9

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. What is Shotgun Sequencing?
2. Define bibliographic database.
3. Enumerate on biological databases.
4. Write two tool used in Prosite.
5. Expand mmCIF.
6. List out the names of DNA microarray databases.
7. What is sequence alignment?
8. Define local sequence alignment.
9. Write any two use of FASTA.
10. Give the name of method of producing direct multiple alignment.
11. What is protein threading?
12. What is meant by comparative modelling?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Differentiate between Epigenomics and Metagenomics.





14. Write on EMBL database.
15. Comment on Entrez genome database.
16. Comment on Stanford microarray database.
17. What is sequence alignment? Comment on its 2 types.
18. Comment on the Needle-Wunsch algorithm.
19. What is PHYLIP and how it is used in Bioinformatics?
20. Briefly explain homology based method of protein function prediction.
21. Write a note on the application of scoring functions on molecular docking.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Discuss on NCBI.
23. Write on 2D gel electrophoresis data bases.
24. Elaborate phenetic and cladistics methods of phylogenetic tree building.
25. Comment on different levels of protein conformation.

(2×10=20)

