



QP CODE: 26019070



Reg No : .....

Name : .....

**M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026**  
**Fourth Semester**  
M Sc BIOCHEMISTRY  
**ELECTIVE - BC820402 - GENOMICS AND PROTEOMICS**

2019 Admission Onwards

9F5DD518

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. Discuss about chromosome packaging.
2. Comment on Sanger Methods for genome sequencing.
3. Write a brief note on RFLP.
4. Write a note on human genome project and its ethical issues.
5. Describe protein arrays.
6. Discuss the applications of microarray technology.
7. Briefly explain mass specrometry.
8. Write a brief note on GOR for protein secondary structure prediction.
9. Briefly describe mass spectral tissue imaging and profiling.
10. Write a short note on protein microarray.

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight 2 each.*

11. Write a note on genome topology.
12. Compare genome organization of prokaryotes and eukaryotes.
13. Explain Pyro-sequencing and Next Generation sequencing methods.
14. Compare genetic mapping and physical mapping.





15. Discuss sequence annotation and bioinformatics tools for genomics.
16. Explain primary, secondary, tertiary and quaternary structure of protein.
17. Explain Active site mapping and prediction.
18. Explain protein-protein interactions by far western analysis and surface plasmon resonance technique.

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight 5 each.*

19. Explain genome of bacteria, archae and eukaryotes.
20. Explain SNPs and their applications.
21. Explain microarray technology and its applications.
22. Explain MS and its different types.

(2×5=10 weightage)

