



QP CODE: 26019248



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Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M Sc BIOINFORMATICS

ELECTIVE - BT800402 - BIO PROGRAMMING

2019 Admission Onwards

09D06161

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. How can you load and use csv file in R?
2. Give the general expression to create a matrix in R.
3. What are the rules for local and global variables in Python?
4. Explain split(), sub(), subn() methods of "re" module in Python.
5. How to remove values to a python array?
6. Write an example for bio.Entrez.equery()
7. Explain multiple sequence alignment using biopython.
8. Write a short note on break and continue statements.
9. How to write multicolumn data in scilab?
10. What is initial and transition probabilities?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Write a note on R programming.
12. Write notes on R ontologies.
13. Explain features of python.
14. Explain the ternary operator in Python.





15. Explain translate() in biopython.
16. Comment on the workspace of scilab.
17. What is the difference between scalars and vectors?
18. Briefly explain the types of SVM.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Discuss in detail the microarray data analysis in R.
20. Discuss in detail on the database connectivity in python.
21. Explain BLAST.
22. Write an essay on neural networks and explain its applications.

(2×5=10 weightage)

