

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023
(Regular/Improvement/Supplementary)

BOTANY
FBOT3C09 - BIOTECHNOLOGY AND BIOINFORMATICS

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Comment on Rasmol.
2. Describe viability tests in plant tissue culture.
3. What is pharmacogenomics?
4. Define FISH.
5. What is meristem culture?
6. Write a note on free software foundation.
7. What are DNA chips?

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Explain Maxam and Gilbert method of DNA sequencing.
9. Give an account on online publications in Biology.
10. Describe somatic hybridization.
11. Comment on DNA microarray.
12. Differentiate between embryo, anther and endosperm culture.
13. Write down the applications of bioinformatics in medicine.
14. Describe the method of production of herbicide and stress resistant plants.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Describe the steps in plant micro propagation.
16. Explain the vector dependent and vector independent methods of gene cloning.
17. Write an essay on biological database.
18. Describe the use of internet in biology.

(2 × 5 = 10 weightage)