

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022
(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. What are synthetic seeds?
2. Comment on gene piracy.
3. What are the factors affecting organogenesis?
4. Comment on GenBank.
5. Explain BLAST.
6. What is metagenomics?
7. Write a note on Antisense RNA technology.

(4 × 2 = 8 weightage)

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

8. Describe the composition and preparation of MS medium.
9. Explain the scope of World Wide Web in biological sciences.
10. Write a note on organ culture methods in plant tissue culture.
11. Describe protein secondary structure prediction.
12. Explain vector independent methods of gene transfer.
13. Write a note on applications of Bioinformatics.
14. Comment on the methods of DNA sequencing.

(4 × 3 = 12 weightage)

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

15. Explain the applications of plant tissue culture.
16. Describe Human Genome Project.
17. Write an essay on online publications in Biology.
18. Elaborate on biological database.

(2 × 5 = 10 weightage)