

23P331

(Pages: 2)

Name: .....

Reg.No: .....

**THIRD SEMESTER M.Sc DEGREE EXAMINATION, NOVEMBER 2024**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P BOT3 C09 - BIOTECHNOLOGY AND BIOINFORMATICS**

(Botany)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**

Answer any *four* questions. Each question carries 2 weightage.

1. Describe Protocol of Callus culture.
2. Illustrate the Structure of a bioreactor.
3. Explain Patenting of genes and GMOs.
4. Make a short note on scope of bioinformatics.
5. Compose the relevance of Cheminformatics.
6. Make a note on application of computer in science and Bioinformatics in biology.
7. Prepare a note on Pubmed Central.

**(4 × 2 = 8 Weightage)**

**Part-B**

Answer any *four* questions. Each question carries 3 weightage.

8. Explain Tissue culture lab facilities.
9. Make a note on Synthetic seed production.
10. Describe the Procedure and application of DNA chip.
11. Describe in detail vectors in rDNA technology.
12. Prepare a note on nucleic acid database and explain its with examples.
13. Make a detailed notes on CLUSTAL – W and its version.
14. Prepare a note on HTTP and HTML.

**(4 × 3 = 12 Weightage)**

**Part-C**

Answer any *two* questions. Each question carries 5 weightage.

15. Discuss Pollen culture.
16. Describe enzymatic method of DNA sequencing.

17. Describe Agrobacterium mediated gene transfer in Plants.
18. Prepare an essay on tertiary protein structure prediction and its relevance.

**(2 × 5 = 10 Weightage)**

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