19P331 (Pages: 1) Name……..

Reg. No……

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CBCSS-PG)

CC19P BOT3 C09 - BIOTECHNOLOGY AND BIOINFORMATICS

(Botany)

(2019 Admission Regular)

Time: Three Hours Maximum: 30 Weightage

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

1. Briefly describe somatic hybrids and synthetic seed production.
2. Comment on invitro germplasm conservation.
3. Write an account on different types of enzymes in recombinant DNA technology.
4. Give an account on Multiple sequence alignment. Give a note on CLUSTAL – W
5. Comment on free software movement.
6. Discuss about DNA fingerprinting.
7. Give a detailed account on BLAST and its varients.

(4 x 2 = 8 Weightage)

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

8. Give an account on tissue culture media with components preparation.
9. Write notes on chromosome walking and chromosome jumping.
10. Explain the significance of EST in sequence analysis. Give an account on EST databases.
11. Briefly explain HTTP, HTML and URLs
12. Write notes on protein sequence databases
13. Briefly explain patenting of genes & GMOs
14. Define cell culture. What are the methods involved in isolation of cells?

(4 x 3 = 12 Weightage)

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

15. Explain different types of organ culture.
16. Describe the various methods of DNA sequencing.
17. Give a detailed account on Protein structure prediction- tools and significance.
18. Give a detailed account on scope and importance of computer applications and informatics in Biology.

(2 x 5 = 10 Weightage)

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