

23P228

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Name:

Reg.No:

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2024

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P BOT2 C04 - CELL BIOLOGY, MOLECULAR BIOLOGY AND BIOPHYSICS

(Botany)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part-A

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

1. Describe synaptonemal complex.
2. Explain the significance of p53 gene in cancer.
3. Illustrate telomerase and explain its function in replication.
4. Describe the four applications of Molecular phylogenetics.
5. Discuss Henderson Hasselbalch and Nernst equation and mention their relevance.
6. Generalize autoradiography.
7. Describe RIA and ELISA.

(4 × 2 = 8 Weightage)

Part-B

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

8. Explain constitutive Heterochromatin.
9. Explain cellular interaction and its applications.
10. Explain the molecular mechanism of cellular differentiation.
11. Describe in detail different forms of DNA.
12. Describe the detail mechanism of Tryptophan operon.
13. Explain the molecular mechanism of mutation and comment on the role of mutator and antimutator genes.
14. Paraphrase Chromatography and its types.

(4 × 3 = 12 Weightage)

Part-C

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

15. Explain the cell cycle events.

16. Discuss the mechanism and significance of cell signalling.
17. Explain the major events in prokaryotic translation. Add a note on post translational events.
18. Explain photometry and its types.

(2 × 5 = 10 Weightage)
