

D2ABT2001

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Name.....

Reg.No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2021
BOTANY
FBOT2C04: CELL BIOLOGY, MOLECULAR BIOLOGY AND BIOPHYSICS

Time: 3 Hours

Maximum Weightage: 30

Part A: All questions can be answered. Each carries *two* weightage (Ceiling 6 weightage).

1. What are Ribozymes?
2. What is Genome, Proteome and Metabolome?
3. What is Satellite DNA? Mention its types.
4. What are Chaperons?
5. Mention the role of Poly(A) polymerase
6. Write down the parts of a pH meter
7. What is Bathochromic shift?

Part B: All questions can be answered. Each carries *four* weightage (Ceiling 12 weightage).

8. Write a short note on Automatic fraction collectors.
9. Exon sequences are conserved but introns vary. Why?
10. What are the modes of Speciation?
11. Explain heterochromatin and its types.
12. Give an account on Aneuploids and Euploids.
13. Comment on the role of Telomerase in aging.
14. What are the factors considered for selection of a Buffer?

Part C: All questions can be answered. Each carries *six* weightage (Ceiling 12 weightage).

15. Elaborate on different repair systems to rectify DNA damage.
16. Write an essay on different levels of Protein structure.
17. Write an essay on Cell cycle and its checkpoints.
18. Discuss the different types of Electrophoresis.