

2022
M.Sc.
Second Semester
CORE – 07
BOTANY
Course Code: MBOC 2.31
(Biochemistry & Biotechnology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Discuss the structure, functions, and properties of amino acids. 4+4+6=14
2. Explain the biosynthesis of fatty acids. 14

UNIT-II

3. What is bioenergetics? Write a note on the significance of the laws of thermodynamics in biological systems. 2+12=14
4. Explain what is a bioenergetically favourable reaction? Write a note on the mechanism of enzyme catalysis. 7+7=14

UNIT-III

5. Write a note on receptors and second messengers. 14
6. Write a note on TCRS. 14

UNIT-IV

7. Describe *Agrobacterium tumefaciens* mediated gene transfer in plants. 14
8. Write a note on restriction enzymes. 14

UNIT-V

9. Describe the chemical degradation gene sequencing method. 14
10. Write a note on primer designing. 14
-