

2022
M.Sc.
Second Semester
CORE – 08
BOTANY
Course Code: MBOC 2.41
(Cell Biology & Molecular Biology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Describe the structure and function of the endoplasmic reticulum. 14
2. Write notes on the following: 7×2=14
 - (a) Plasmodesmata
 - (b) Regulation of cell cycle with reference to checkpoints

UNIT-II

3. Describe the structure and functions of ribosomes. 14
4. What are cytoskeletons? Explain the structural organization of microtubules and microfilaments. 2+12=14

UNIT-III

5. Elaborate on genetic code. 14
6. Write a note on t-RNA. 14

UNIT-IV

7. Describe the protein synthesis mechanism in eukaryotes. 14
8. Write a note on *lac* operon. 14

UNIT-V

9. Describe the different molecular basis of gene mutation. 14
10. Describe DNA damage and repair mechanism. 14
-