

No. of Printed Pages : 03

Roll No.

28832

B.Sc. EXAMINATION, 2025

(First Semester)

BOTANY

Paper II

Cell Biology

Time : 3 Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

1. Write short notes on the following : **2×4=8**

- (i) Aneuploidy
- (ii) Chromosomal duplication and translocation
- (iii) Centromere and Telomere
- (iv) Vacuoles.

Unit I

2. Write notes on structure and function of : $4 \times 2 = 8$
- (a) Nucleus
 - (b) Golgi Apparatus.
3. Discuss the structure and functions of plasma membrane in detail. 8
4. (a) Explain the functions of Lysosomes and Peroxisomes.
- (b) Write about structure and functions of chloroplast. $4 \times 2 = 8$
5. Write notes on the following : $4 \times 2 = 8$
- (a) Cell wall
 - (b) Mitochondria

Unit II

6. What is Meiosis ? Discuss its various stages in detail. 8

7. Write short notes on the following : $4 \times 2 = 8$

- (a) Chromosomes
- (b) Chromosomal variations

8. Write a detailed note on Chromosomal alterations. 8

9. Explain the following : $4 \times 2 = 8$

- (a) Sex determination
- (b) Mitosis.

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