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SA—21—2025

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

APRIL/MAY, 2025

(CBCE/New Pattern)

BOTANY

Paper—XII

(Cell and Molecular Biology)

(Saturday, 12-4-2025)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :- (i) Attempt *all* questions.

(ii) Illustrate your answers with labelled diagrams.

1. Describe the prophase I of meiosis. Add a note on its significance. 15

Or

Describe in brief :

(a) Ultrastructure and functions of Nucleus. 8

(b) Types of Lysosomes. 7

2. What are Nucleic acids ? Describe structure and functions of *m*-RNA and *r*-RNA 15

P.T.O.

WT

(2)

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Or

- (a) Lac operon model. 8
- (b) Phenylketonuria. 7
3. Write short notes on (any two) : 10
- (a) Functions of ER
- (b) Lampbrush chromosome
- (c) Nucleotides
- (d) Mutagens