

D (Printed Pages 3)
(20425) Roll No.
B.Sc. (Biotech.)-I Year.

3457

B.Sc. (Biotechnology)
Examination, April-2025
Cell Biology
(B-103)
B.Sc. (Bio-Tech.)

Time : Three Hours] [Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carries equal marks.

1. Write a detailed note on cell membranes and the functions of cell organelles. 10
2. Write a well-labeled diagram of the Prokaryotic cell. 10
3. Describe in detail of.
 - (i) Chloroplast 5
 - (ii) Mitochondria 5

P.T.O.

4. Differentiate between the following terms:
 - (i) Rough endoplasmic reticulum and smooth endoplasmic reticulum. 4
 - (ii) Mitosis and meiosis 3
 - (iii) Thylakoids and cisternae 3
5. Write a detailed note on the following:
 - (i) Cell junction. 5
 - (ii) Cell locomotion. 5
6. Write a detailed note on the Structure of Gram-positive and Gram-negative bacterial cell walls. 10
7. Write a short note on any two of the following:
 - (i) Replication 4
 - (ii) Flagella 3
 - (iii) Protein synthesis. 3
8. What do you understand by the Cell signaling and Signal transduction pathway? 10

3457/2

9. Write a short note on the following:

- (i) Peroxisomes 4
- (ii) Adenylate cyclase 3
- (iii) Cancer cell 3

10. Very short answers are required. Attempt all the following questions: $2 \times 5 = 10$

- (i) Nerve cell
- (ii) Ribosome
- (iii) Programmed cell death
- (iv) Flagella
- (v) Nucleolus