

Exam. Code : 210002
Subject Code : 4840

M.Sc. Botany 2nd Sem. (Batch 2021-23)
CELL BIOLOGY
Paper : BOTC-524

Time Allowed—3 Hours] [Maximum Marks—50

Note :— Attempt *five* questions in all, selecting at least one question from each section. The *fifth* question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Write a detailed note on protein sorting and targeting towards different cell organelles.
2. Discuss in detail about different levels of structural organization in reference to unicellular, colonial and multicellular forms.

SECTION—B

3. Discuss structural organization and functions of mitochondria and endoplasmic reticulum.
4. Describe in detail about regulation of gene expression in prokaryotes and eukaryotes.

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SECTION—C

5. Describe the role of G-proteins in signaling pathways.
6. How microorganisms respond to different stresses ? Describe growth patterns and different strategies of cell division adopted by microorganisms.

SECTION—D

7. Elucidate the structure and function of Bacterial and plant two-component signaling systems.
8. Describe the role of different cell adhesion molecules in cell communication.