

RAN-2403001301021111 / 2403000501021111
B.Sc. (Bio Technology) (Sem. I) Examination November - 2025
BT-MJ-102 : Cell Biology
Time: 1:30 Hours]
[Total Marks: 38
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Figures to the right indicate full marks.
- (3) Draw neat and labelled diagrams wherever necessary.

Seat No.:

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Student's Signature

Q.1. Short question. (Any 8 out of 9)
(08)

- a) Give examples of organisms with eukaryotic cells.
- b) Define: Cell wall.
- c) Who coined the term “cell”?
- d) Which type of ribosome is found in eukaryotes?
- e) What are thylakoids?
- f) Why are lysosomes called “suicidal bags”?
- g) Name the control factors of cell cycle.
- h) Write the role of S-Phase in cell cycle.
- i) What is the stage of mitosis where chromosomes condense and the nuclear envelope breaks down?

Q.2. Short Note. (Any 2 out of 3)
(10)

- a) Write basic properties of cell.
- b) Describe in detail the similarities between prokaryotic and eukaryotic cells.
- c) Write a detailed note on Bacterial Cell Wall.

Q.3. Short note. (Any 2 out of 3)
(10)

- a) Discuss why mitochondria are referred to as the “powerhouse of the cell” and explain their role in energy metabolism.
- b) Describe the structure of peroxisomes and their distribution in eukaryotic cells.
- c) Explain functions and Structure of ER.

Q.4. Short note. (Any 2 out of 3)
(10)

- a) Discuss about Eukaryotic cell Division.
- b) Write a note on Control of cell cycle.
- c) Give a brief on Various cell division mechanism in prokaryotes.