

G-1/109/21

Roll No.....

**M.Sc. I Semester Examination, April-2021**

**BOTANY**

**Paper I**

**(Cytology)**

Time : 3 Hours ]

[Maximum Marks : 80

**Note** : *All questions are compulsory. Question Paper comprises of 3 sections. Section A is objective type/Multiple Choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

**SECTION 'A'**

**1×8=8**

*(Objective Type Questions)*

*State True or False :*

1. Cell receptors are mostly proteins.
2. In mature plants middle lamella is made upto Ca, Mg, pectate.
3. Lignin is a sugar.
4. Beta Carotenes reduces apoptosis.
5. Enzyme related to ETS are found in inner membrane of mitochondria.

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6. 80S ribosomes are found in prokaryotes.
7. Vacuole membrane is called karyotheca.
8. Histone proteins are made in S phase of cell cycle.

**SECTION 'B'**

**6×4=24**

*(Short Answer Type Questions)*

**Note :** Answer the following questions in 250 words.

1. Write about cell wall structure and functions.

Or

Describe Xylem and phloem cells.

2. Write notes on mitochondria.

Or

Write notes on RNA editing.

3. Write notes on Cytokinesis and cell plate formation.

Or

Write notes on Apoptosis.

4. Write notes on Endoplasmic reticulum.

Or

Write notes on FISH.

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**SECTION 'C'**

**12×4=48**

*(Long Answer Type Questions)*

**Note :** Answer the following questions in 500 words.

1. Describe structure of cell wall.

Or

Describe ion carrier channels and pumps.

2. Write about chloroplast, structure genome organisation and biogenesis.

Or

Write about ATPase transporters as a storage organelle.

3. Write notes on Ribosomes.

Or

Write notes on role of Cyclin dependent kinases.

4. Write about structure and function of microbodies, microtubules and microfilament.

Or

Describe immunotechniques studied by you.

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