



**LJ-511**

**M.Sc. Botany**

1st Semester Examination, July-Dec., 2020

74  
22  
2020  
Paper - I

Cytology

*Time* : Three Hours]      [*Maximum Marks* : 80

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**Note** : Answer from **all** the Units and Question Number 1 is compulsory. All questions carry equal marks.

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1. Write notes on the following :
  - (a) The dynamic cell structure organization of plant cell
  - (b) Nucleus
  - (c) The technique in cell biology
  - (d) Apoptosis

**Unit-I**

2. Give the illustrated account on the structure, function and models of plasma membrane.

**OR**

(2)

Write short notes on any **two** of the following :

- (a) Molecular organization, biogenesis of cell wall
- (b) The ion carriers channels
- (c) Bio-chemical energetics of cell

**Unit-II**

3. Describe the plant vacuole and its function.

**OR**

Write notes on any **two** of the following :

- (a) Chloroplast
- (b) RNA editing
- (c) Mitochondria

**Unit-III**

4. Describe the structure and function of Ribosomes.

**OR**

Write notes on any **two** of the following :

- (a) Cytokinesis and cell plate formation
- (b) Programmed cell death
- (c) Cell cycle

(3)

**Unit-IV**

5. Describe the structure and function of microbodies and microtubules.

**OR**

Write notes on any **two** of the following :

- (a) Fish
- (b) Lysome
- (c) Endoplasmic reticulum