

**C077**

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# **MSCBOT-506**

## **Cell Biology of Plants**

M.Sc. BOTANY (MSCBOT)

2nd Semester Examination, 2022 (June)

**Time : 2 Hours]**

**Max. Marks : 80**

**Note :** This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

### **SECTION–A**

#### **(Long Answer Type Questions)**

**Note :** Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. Describe the stages of mitosis in detail with diagram.
2. What is nucleic acid? Describe their structure and functions.

3. What are plastids? Write a descriptive essay on chloroplast and its morphology.
4. Give an account on the structure of cell wall. What is the role of lignin in cell wall?
5. Write in detailed about the structure of chloroplast with the help of diagram.

### **SECTION-B**

#### **(Short Answer Type Questions)**

**Note :** Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. What are the difference between prokaryotic cells and eukaryotic sells?
2. Functions of carbohydrate.
3. Discuss various factors effecting senescence.
4. Discuss the types of lipids in brief.
5. Why meiosis is called reductional division?
6. Why mitochondria called as powerhouse of the cell?

7. Differentiate between :
- (a) Rough Endoplasmic Reticulum and Smooth Endoplasmic Reticulum.
  - (b) Cell wall and cell membrane.
8. What is genome and C-value? Discuss in brief.
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