

**PDO-166-S.E.-CV-19**  
**M.Sc. BOTANY (1<sup>st</sup> Semester), ATKT**  
**Examination, Dec.-2020**  
**Paper-III**

**CELL AND MOLECULAR BIOLOGY OF PLANTS**

**Time : Three Hours]**

**[Maximum Marks : 80**

**[Minimum Pass Marks : 29**

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**Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.**

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**Section-A**

**1. Answer the following questions:-**

**1x10=10**

- (a) Cell doctrine states.....
- (b) Gram positive means.....
- (c) Plasma membrane discovered by.....
- (d) Fluid mosaic model given by.....
- (e) Middle lamella made up of.....
- (f) Known as protein factories.....
- (g) Lysosome also known as.....
- (h) Known as power house of the cell.....
- (i) Lycoprotein is important part of.....
- (j) Crossing over occur in which phase.....

**2. Answer the following questions in brief:-**

**2x5=10**

- (a) Define grana and stroma.
- (b) What is cell plate.
- (c) Difference in DNA and RNA.
- (d) Define cytokinesis.
- (e) Define replication.

**Section-B**

**15x4=60**

**Attempt all question.**

**3. Describe structure and function of Mitochondria with suitable diagrams.**

**OR**

**Describe structure and function of endoplasmic reticulum.**

**4. Write an account on Ribosome.**

**OR**

**Write brief account on Nucleus.**

**5. Discuss structural organization of cell, cell type and chemical foundation.**

**OR**

**Explain structure and function of golgiapparatus.**

**6. Explain all phases of Mitosis cell division.**

**OR**

**Write notes on the following:-**

- (a) Cell Motility      (b) Vacuoles**