

Exam. Code : 103202

Subject Code : 1292

B.A./B.Sc. Semester—II

**BOTANY**

(Cell Biology)

**Paper—II-A**

Time Allowed—3 Hours] [Maximum Marks—35

**Note :—** (1) The question paper consists of **TWO** Sections. Section—I is compulsory ; restrict your answer to 3-4 lines, each question carries 1 mark.  $1 \times 7 = 7$

(2) Section—II consists of 8 questions ; you are required to attempt only **FOUR**. Each question carries 7 marks.  $4 \times 7 = 28$

(3) Support your answers with neat and labelled diagrams wherever necessary

**SECTION—I**

Attempt **ALL** questions. Explain (in brief) the following :

1. Function of nucleolus.
2. Telomere
3. Aneuploidy

4. Endoplasmic reticulum.
5. Inversion.
6. Vacuole.
7. Sex chromosome.

### SECTION—II

1. Differentiate between the mitochondrial and plastid DNAs emphasizing their functions.
2. Describe the ultra structure of nuclear membrane and its importance.
3. In what way are the Golgi and ER helpful to a cell ? How do the two differ from each other ?
4. Discuss in detail the structure and function of peroxisomes.
5. Write short notes on :
  - (a) Structure of primary cell wall
  - (b) Polyploidy and its importance.
6. What is meant by structural alterations ? Enlist the types and explain any one of them in detail.
7. What do you understand by the term 'Chromosome' ? Dissect out its morphology in detail.
8. Explain plasmids and their importance in human health.