

M.Sc.(Zoology) CBCS Pattern Semester-I  
**PSCZOOT03 - Paper-III : Cell Biology and Genetics**

P. Pages : 1

Time : Three Hours



**GUG/W/23/11177**

Max. Marks : 80

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- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Draw well labelled diagram are necessary.

**1. Write membrane structure and transport in detail. 16**

**OR**

- a) Explain Cell cycle.
- b) Write about structural organization of Mitochondria.

**2. Explain signal Transduction pathways. 16**

**OR**

- a) Cell-cell communication.
- b) Metastasis.

**3. Write a detailed account on types of mutation. 16**

**OR**

- a) Mono & dihybrid inheritance.
- b) Linkage and crossing over.

**4. Describe Structural alternations of chromosomes. 16**

**OR**

- a) Cytoplasmic inheritance.
- b) Conjugation in bacteria.

**5. Attempt the following. 16**

- a) Microfilaments.
- b) Oncogenes.
- c) Inbreeding.
- d) Pedigree Analysis.

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