

M.Sc. - I (Zoology) (NEP Pattern) Semester-I  
**NEP-83 / 01MSCZO03 - Paper-III - Cell Biology and Genetics**

P. Pages : 1

Time : Three Hours



**GUG/W/24/15145**

Max. Marks : 80

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

**1. Describe structure and function of Membrane in details. 16**

**OR**

- a) Structural organization of Mitochondria.
- b) Cell cycle.

**2. Describe signal transduction pathways. 16**

**OR**

- a) Receptor proteins.
- b) Metastasis

**3. Describe in details types of mutation. 16**

**OR**

- a) Monohybrid and dihybrid inheritance.
- b) Linkage.

**4. Describe structural alternations of Chromosomes. 16**

**OR**

- a) Inheritance of Mitochondrial genes.
- b) Pedigree analysis.

**5. Attempt the following. 16**

- a) Microtubules
- b) Gap junctions
- c) Polygenetic traits
- d) Transduction

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