

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

P. Pages : 1

Time : Three Hours



**GUG/W/22/11177**

Max. Marks : 80

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

1. Describe in detail phases of Meiosis. **16**

**OR**

- a) Microtubules.
- b) Structure of Plasma membrane.

2. Write an account on cell signaling hormones and their receptors. **16**

**OR**

- a) Cellular communication.
- b) Signal transduction pathway.

3. Write an account on Linkage and crossing over & add on Sex limited characters. **16**

**OR**

- a) Mutation types.
- b) Codominance and Incomplete dominance.

4. Write an account on numerical alterations of chromosomes. **16**

**OR**

- a) Mapping of Genes.
- b) Pedigree Analysis.

5. Write on **16**

- a) Endoplasmic Reticulum.
- b) Proto oncogenes.
- c) Monohybrid inheritance.
- d) Cytoplasmic Inheritance.

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