

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

P. Pages : 1

Time : Three Hours



GUG/W/24/11177

Max. Marks : 80

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- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Illustrate your answers with labeled diagrams wherever necessary.

- 1.** Give an account on structure and functions of plasma membrane. **16**

OR

Write notes on.

- a) Structural organization of nucleus.
- b) Structure and function of microfilaments.

- 2.** Describe in detail signaling through G protein coupled receptors. **16**

OR

Write notes on.

- a) Cell adhesion molecules.
- b) Primary messenger.

- 3.** What is Mendelian inheritance? Describe in detail monohybrid inheritance. **16**

OR

Write notes on:

- a) Co-dominance.
- b) Types of mutation.

- 4.** Describe in detail the Numerical alternations in chromosomes. **16**

OR

Write notes on:

- a) Extra-chromosomal inheritance.
- b) Conjugation in bacteria.

- 5.** Attempt the following. **16**

- a) Checkpoints of cell cycle.
- b) Metastasis
- c) Polygenic trait
- d) Pedigree analysis.
