

**D 41358**

Name.....

Reg. No.....

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2008**

General Biotechnology

**GBT 101—CELL BIOLOGY**

Maximum : 80 Marks

Time : Three Hours

**Section A**

*Answer any **two** questions.*

1. Give a brief comparison between Mitosis and Meiosis.
  2. Give an account on structure and production of intracellular signalling proteins.
  3. How **peroxisomes** perform oxidative reaction ?
- (2 x 10 = 20 marks)

**Section B**

*Answer any **ten** questions.*

4. Compare and contrast Light and Electron microscopy.
  5. Explain theories about physical characteristics of the Matrix.
  6. Write notes on Fluid Mosaic model of the Cell Membrane.
  7. Explain structure and functions of Mitochondria.
  8. Explain Classification of Plastids.
  9. Explain Physiology of Ciliary movements.
  10. Give a brief note on Cell cycle.
  11. How **mitogen** stimulate the cell division ?
  12. Write notes on carriers and channels of membrane protein.
  13. Explain various types of **Membrane** Proteins.
  14. Explain **GTP** binding protein mediated cellular process.
- (10 x 5 = 50 marks)

**Section C**

*Answer **all** questions.*

15. **Apoptosis**.
  16. Chromosomal crossing over.
  17. **Na<sup>+</sup> - K<sup>+</sup>** pump.
  18. Cell theory.
  19. RNA splicing.
- (5 x 2 = 10 marks)