

55007

Seat No. _____

M. Sc. (Part - I) Examination

April / May – 2003

Zoology : Paper - I

(Cell Biology, Genetics & Radiation Biology)

Time : 3 Hours]

[Total Marks : 100

**NB: All questions carry equal marks.
All questions are compulsory.
Illustrate your answers with neat diagrams wherever necessary**

1. Describe: a). Principle and working of Electron Microscope
b). Topography of Cytoskeleton

OR

1. Describe ultrastructure and functions of: a). Peroxisome
b). Mitochondria

2. Write an account on: a). Events in Cell cycle
b). Multiple alleles

OR

2. Write an account on: a). Solenoid model
b). Linkage and crossing over

3. Describe: a). Transposable elements
b). Spontaneous mutation

OR

3. Describe: a). Methods to construct recombinant DNA
b). Events in transcription and RNA splicing

4. Describe: a). Types of non-ionising radiation
b). Effect of radiation on the skin, bone and immune function

OR

4. Discuss: a). Radiation is a cure and cause of cancer
b). Methods for measurement of Radiation

5. Write short notes on **any three** of the following:

- a). Optical aberrations
b). 70 S Ribosome
c). Y – chromosome specific genes
d). C – value paradox
e). Enzymes in DNA replication
f). Radioactive decay and half life