

(DBOT 23)

M.Sc. DEGREE EXAMINATION, MAY 2011.

Second Year

Botany

Paper VII — CELL BIOLOGY AND MOLECULAR
BIOLOGY

Time : Three hours Maximum : 100 marks

SECTION A — (5 × 8 = 40 marks)

Answer any FIVE of the following.

1. Golgi complex.
2. Structure of chloroplast.
3. Light microscopy.
4. Salient features of transposable elements.
5. Conjugation.
6. Fine structure of gene.
7. Genetic code.
8. Any two repair mechanisms of DNA.

SECTION B — (4 × 15 = 60 marks)

Answer all the FOUR questions.

9. (a) Explain the structure and functions of Mitochondria.

Or

- (b) Give an account on structure of plasma membrane.

10. (a) Write notes on Genetics of cancer.

Or

- (b) Give an account on cell signaling and signal transduction.

11. (a) Describe the structure of DNA.

Or

- (b) What is recombination? Explain the recombination in phage?

12. (a) Explain the gene regulation in Prokaryotes.

Or

(b) Describe the mechanism of replication of Deoxyribonucleic acid.
