

(DBOT 23)

M.Sc. (Final) DEGREE EXAMINATION,
DECEMBER 2010.

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. Models of plasma membrane.
2. Ogologi complex.
3. Electron microscope.
4. Bancer.
5. Transformation.
6. Gene concept.

7. Genetic code.
8. Transcription.

SECTION B — ($4 \times 15 = 60$ marks)

Answer ALL questions.

9. (a) Discuss the ultra structures of mitochondria and explain its role in the synthesis of ATP.

Or

- (b) Describe the structure and functions of lysosomes.

10. (a) Give an account of cell signaling.

Or

- (b) Describe transposable elements.

11. (a) How do you prove DNA as genetic material?

Or

- (b) Explain genetic recombination in phage.

12. (a) Describe replication in DNA.

Or

- (b) Explain gene expression in eukaryotes.