

(DBOT 04)

M.Sc. DEGREE EXAMINATION, DECEMBER 2011.

First Year

Botany

Paper IV — PLANT PHYSIOLOGY AND
METABOLISM

Time : Three hours

Maximum : 100 marks

SECTION A — (5 × 8 = 40 marks)

Answer any FIVE questions.

1. Micro nutrients transport by diffusion.
2. Membrane transport proteins.
3. CAM-Pathway.
4. Glycolysis.
5. Phospholipids.
6. Glyoxalate cycle.
7. HR and SAR processes.
8. Auxins.

SECTION B — (4 × 15 = 60 marks)

Answer ALL questions.

9. (a) Enumerate the physical and chemical properties of water.

Or

- (b) Explain the stomatal regulation of transpiration.

10. (a) Give an account of nomenclature, classification and mode of action of enzymes.

Or

- (b) Describe photorespiration and its significance.

11. (a) Write an essay on nitrogen fixation.

Or

- (b) Describe the synthesis of aminoacids.

12. (a) Give an account of photo chemical and biochemical properties of phytochrome and add a note on phytochrome induced plant responses.

Or

- (b) Describe photoperiodism and role of vernalization.
