

35012

M.Sc. DEGREE EXAMINATION, NOVEMBER 2016.

THIRD SEMESTER

Botany

Paper II — PLANT PHYSIOLOGY

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Ion channels.
2. Aquaporins.
3. Sulphur chemistry.
4. Symbiotic and Asymbiotic nutrition.
5. Polyamines.
6. Calcium-Calmodulin cascade.
7. Phytochelatins.
8. Osmotins.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Discuss the SPAC concept in plants.

Or

10. Write a note on mechanism of stomatal movement.

11. Describe the essential elements, deficiency symptoms and plant disorders.

Or

12. Give a brief account on biological fixation of nitrogen.

13. Write a brief account on biosynthesis and physiological effects of Auxins.

Or

14. Bring out the salient features of signal transduction in plants.

15. Bring out the salient features of abiotic stress response in plants.

Or

16. Mention the tolerant mechanism in plants against biotic stress.

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