

(041440302)

M.Sc. DEGREE EXAMINATION, APRIL 2018

FOURTH SEMESTER

Branch - BOTANY

Paper III — MOLECULAR PLANT PHYSIOLOGY

Time : 3 Hours

Max. Marks : 70

PART - A

Answer any FOUR questions. Each question carries 5 marks.

(Marks : 4×5 marks = 20 marks)

1. Calcium Calmodulin Cascade
2. Phosphatases
3. ATPase
4. PSI
5. Photoinduction
6. Vernalization
7. Epinasty
8. Regulation of stomatal aperture.

PART - B

Answer ONE question from each Unit.

Each question carries 12.5 marks.

(Marks : 4×12.5 marks = 50 marks)

UNIT - I

9. Explain the molecular changes associated with leaf senescence.

Or

10. Give an account on different plant receptors and protein kinases.

UNIT - II

11. Define Rubisco and explain about its activation and significance of photorespiration.

Or

12. Explain the mechanisms involved in CO_2 fixation.

[P.T.O]

UNIT - III

13. Give an account on physiological signals of floral induction.

Or

14. Discuss the role and regulation of endogenous clocks in flowering.

UNIT - IV

15. Describe the molecular responses of plant to salt stress.

Or

16. Explain the mechanism of tolerance of plant to high temperature.
