

Exam. Code : 103205

Subject Code : 1390

B.A./B.Sc. 5th Semester

BOTANY

Paper-V (A) : (Plant Physiology)

Time Allowed—3 Hours]

[Maximum Marks—35

Note :— There are total **NINE** questions. All questions have 7 marks each. Question No. 1 is compulsory. Answer in 3-4 lines. From remaining **EIGHT** questions, candidate is required to attempt any **FOUR** questions.

1. Write notes on :

(A) Osmosis

(B) Trace elements

(C) Epinasty

(D) Photoinhibition

(E) Hill reaction

(F) Kranz anatomy

(G) Photoperiodism.

1×7=7

2. (A) Differentiate between macronutrients and micronutrients. 3.5

(B) Describe the role of phosphorus and potassium in plant nutrition. 3.5

3. Write short notes on :

(A) Florigen concept 3.5

(B) Growth curve. 3.5

4. Explain the role of light in the regulation of plant development. What is the function of phytochrome ? 7

5. Explain the Transpiration Pull theory. 7

6. Write notes on :

(A) Carrier concept 3.5

(B) Active absorption of ions. 3.5

7. (A) Differentiate between C₄ and C₃ plants. 3.5

(B) Write a note on Hatch Slack Cycle. 3.5

8. Write short notes on :

(A) Photorespiration 3.5

(B) Emerson effect. 3.5

9. Discuss the role of :

(A) Ethylene in fruit ripening 3.5

(B) Auxins in parthenocarpy. 3.5