

Exam. Code : 103205

Subject Code : 1345

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

BOTANY

(Plant Physiology)

Paper—VA

Time Allowed—3 Hours]

[Maximum Marks—35

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

1. (a) Define diffusion.
 - (b) Write a short note on hydroponics.
 - (c) Define action and absorption spectra.
 - (d) What is florigen concept ?
 - (e) Define seed dormancy.
 - (f) Define phytochromes and cryptochromes.
 - (g) Define senescence 1×7=7
2. Briefly explain the following :
 - (a) Physiology of stomata
 - (b) Transport of water and transpiration. 3.5×2=7

3. Write short note on importance of water to plant life and also explain the physical properties of water. $3.5 \times 2 = 7$
4. Describe the mechanism of mineral uptake in plants. $3.5 \times 2 = 7$
5. What is sources-sink relationship ? Describe the mechanism of phloem transport. $3.5 \times 2 = 7$
6. Write short notes on :
- (a) Photosystem-I
 - (b) Z-scheme. $3.5 \times 2 = 7$
7. Write short notes on :
- (a) Calvin cycle
 - (b) C4 pathway. $3.5 \times 2 = 7$
8. Briefly explain the following :
- (a) Plant movement and photoperiodism
 - (b) Seed germination and factor that regulate seed germination. $3.5 \times 2 = 7$
9. Write short notes on :
- (a) Auxin
 - (b) Gibberellins. $3.5 \times 2 = 7$