

Exam. Code : 103205

Subject Code : 1325

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

BOTANY

Paper-V A (Plant Physiology)

Time Allowed—3 Hours] [Maximum Marks—35

Note :— Attempt FIVE questions in all, selecting at least ONE question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Write short notes on the following :—
 - (a) Physical properties of water 3.5
 - (b) Osmosis 3.5
2. Define transpiration. Explain the mechanism of transpiration in plants. 7

SECTION—B

3. Discuss the following :—
 - (a) Difference between macro & micro elements 3.5
 - (b) Symptoms of Ca & Mg deficiency in plants. 3.5
4. Explain the Munch hypothesis of translocation of solutes in phloem. 7

SECTION—C

5. What do you mean by photophosphorylation? Distinguish between cyclic and non-cyclic photophosphorylation. 7
6. Describe briefly :—
 - (a) Red drop effect 2
 - (b) Enhancement effect 2
 - (c) Action spectrum 3

SECTION—D

7. Explain the physiological role of :—
 - (a) Auxins 3.5
 - (b) Gibberellins 3.5
8. Discuss the following :—
 - (a) Short day plants 3.5
 - (b) Phytochromes. 3.5