

CS/2110

PAPER – IX PLANT PHYSIOLOGY
B. Sc. BOTANY Semester – V

10400/NH

Time Allowed: 3 Hours

Max. Marks: 40

Section – A

Do any TWO

1. Describe in detail mechanism of transpiration in plants.
2. Illustrate the mechanism of solute transport in plants.
3. Explain the mechanism of enzyme action.
4. Elucidate deficiency and toxicity symptoms of N, P and Fe in plants.

2 x 6 = 12

Section – B

Do any TWO

1. Describe the mechanism of CO₂ fixation in dicots.
2. Elucidate the fate of pyruvates in presence and absence of O₂.
3. Give detail account of structural fatty acid biosynthesis in plants.
4. How nitrogen is fixed in free living bacteria and where it occurs?

2 x 6 = 12

Section – C

All questions compulsory

1. What are C₄ plants? Explain by giving suitable examples.
2. Differentiate between saturated and unsaturated fatty acids.
3. What are desaturases enzymes?
4. What do you mean by redox potential?
5. Give a brief account of enzyme nomenclature.
6. Define water potential in plants.
7. Define substrate level phosphorylation. Where it occurs?
8. Explain the factors which promote photorespiration.

8 x 2 = 16