

CS/2110

5242/NH

PAPER - IX PLANT PHYSIOLOGY
~~XXXXXXXXXX~~ Semester - V

Time Allowed: 3 Hours

Max. Marks: 40

Section - A

Do any TWO

1. Elucidate the mechanism of water transport from soil through plants into atmosphere.
2. Discuss in detail phloem transportation in plants.
3. Give a detail account of regulation of enzyme activity.
4. Deliberate about micro- and macro nutrients in plants. How they are involved in plant growth and productivity?

2 x 6 = 12

Section - B

Do any TWO

1. Describe the mechanism of CO₂ fixation in monocots.
2. Deliberate oxidative phosphorylation in plants and its regulation.
3. Discuss the mechanism of symbiotic nitrogen fixation in plants with example.
4. Explain saturated fatty acid biosynthesis in plants.

2 x 6 = 12

Section - C

All questions compulsory

1. Define cofactors giving suitable examples.
2. Name the key enzymes responsible for glycolysis regulation and the step where they involved in glycolysis.
3. Describe briefly photosystem in plants.
4. Give brief account of factors affecting transpiration.
5. What are CAM plants?
6. What is the importance of nitrate reductase in plants?
7. Differentiate between saturated and unsaturated fatty acids.
8. What do you mean by action spectra and enhancement effect?

8 x 2 = 16