

- NOTE:** 1. All questions are compulsory.
2. Figures to right indicate marks.
3. Draw labelled diagrams wherever necessary.

Q I Answer the following (Any Two) (20)

- 1) Explain the process of secondary growth in a monocot stem.
- 2) With the help of suitable example, Explain I- girders in aerial organs of plants.
- 3) Explain different types of thickening with the help of neat labelled diagrams.
- 4) Give a detail account of xylem with suitable example.

Q II Answer the following (Any Two) (20)

- 1) What are phytochromes? Give its physico-chemical properties.
- 2) What is photorespiration? Give its mechanism.
- 3) Describe TCA cycle with its significance.
- 4) What is respiration? Give difference between Aerobic and anaerobic types of respiration.

Q III Answer the following (Any Two) (20)

- 1) Explain nitrogen cycle with its importance.
- 2) Explain the types of soil on basis of its texture.
- 3) Explain upright pyramid of biomass in a terrestrial ecosystem.
- 4) Give a detail on process of soil formation.

Q IV Write short notes on (Any Three) (15)

- 1) Heterocentric vascular bundle.
- 2) Sclereids
- 3) Terminal oxidation
- 4) Importance of photoperiodism.
- 5) Eluviation and illuviation.
- 6) Ammonification

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