

QP Code : AU-6442

(2½ Hours)

[ Total Marks : 60

- N.B. :** (1) All questions are **compulsory**.  
(2) **Draw** neat and labelled **diagrams** wherever **necessary**.  
(3) All questions carry **equal** marks.

1. Explain the anatomy of sieve tube elements with suitable diagrams and add a note on importance of sieve elements in translocation. 12

**OR**

1. Explain biodegradation of fattyacide. 12

2. Explain how tetrad analysis is used for mapping genes in Neurospora. 12

**OR**

2. What are mutations ? Describe the various physical agents responsible for causing mutations. 12

3. What is Phytoremediation ? Discuss the various processes involved in phytoremediation of metals. 12

**OR**

3. What is Bioaccumulation ? Describe the process of bioaccumulation in an ecosystem. 12

4. Enlist various phytogeographical regions of India and describe any three regions in detail. 12

**OR**

4. What is biodiversity ? State the various reasons causing loss of biodiversity. 12

5. Write short notes on (any **three**) :- 12

- (a) Passive transport of solutions.
  - (b) Types of lipids.
  - (c) Missense mutation
  - (d) Role of base analogues in mutations
  - (e) Biomagnification
  - (f) Biodiversity of Tropical forest.
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