

Time – 2 ½

Marks - 75

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

Q.1 Attempt any two

15

- a Give a detailed account on anatomical structure of young stem of *Gnetum*.
- b Explain morphological structure of *Ephedra*. Add a note on T.S. of leaf of *Ephedra*
- c Discuss in detail male cone and male flower of *Gnetum*.
- d Describe in detail female stobilus of *Ephedra*.

Q.2 Attempt any two

15

- a Give classification, distinguishing characters and floral formula of family *Umbelliferae*.
- b Discuss classification, distinguishing characters and two plants of economic important of family *Capparidaceae*.
- c Describe various palynological characters in relation to taxonomy.
- d Discuss in detail Hutchinson's system of classification.

Q.3 Attempt any two

15

- a Describe the structure & development of microsporangium.
- b Explain double fertilization and its significance.
- c Give an account of stages in development of *Capsella* type of embryo.
- d Describe the structure of megasporangium and explain the process of megasporogenesis in angiosperms.

Q.4 Attempt any two

15

- a Describe in detail anomalous secondary growth in *Dracaena* stem.
- b Give a brief account of anomalous secondary growth in Radish root.
- c Explain anomalous secondary growth in *Achyranthes* stem.
- d What is stomata? Discuss in detail anisocytic, paracytic and diacytic type of stomata.

Q.5 Attempt any three

15

- a L.S. of *Gnetum* ovule.
- b Systematic position of *Ephedra*.
- c Bentham & Hooker's system of classification.
- d Economic importance of sub- family Zingiberaceae.
- e Anomocytic stomata.
- f Pollen tetrad.

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