

Please check whether you have got the right question paper.

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

- 1 **Attempt any two :** 15
 - a) Describe in detail the T.S. of young stem of *Ephedra*.
 - b) Give a brief account of female cone of *Gnetum*. Add a note on its ovule.
 - c) Discuss in detail morphology and distribution of *Ephedra*. Add a note on its systematic position.
 - d) Describe the T.S. of leaf of *Gnetum*. Add a note on its systematic position.

- 2 **Attempt any two :** 15
 - a) Give the classification, distinguishing characters and floral formula of family Labiatae.
 - b) Explain the Hutchinson's system of Classification.
 - c) Describe the morphological peculiarities, systematic position and economic importance of any two plant of family Cannaceae.
 - d) Discuss the role of monographs and journals as taxonomic literature.

- 3 **Attempt any two :** 15
 - a) Give a brief account of rooted and floating hydrophytes. Add a note on their anatomical adaptations.
 - b) What are mesophytes? Explain their ecological adaptations with suitable examples.
 - c) Describe the morphological and anatomical adaptation of halophytes with suitable examples.
 - d) Discuss in detail various ecological adaptations of xerophytes.

- 4 **Attempt any two :** 15
 - a) Discuss the structure of megasporangium and explain the process of megasporogenesis in angiosperms.
 - b) What is double fertilization? Explain its process and significance.
 - c) With suitable diagrams explain any three types of ovules studied by you.
 - d) Give a brief account of development of embryo in *Capsella*.

- 5 **Attempt any three :** 15
 - a) T.S. of leaf of *Ephedra*
 - b) Economic importance of Asclepiadaceae
 - c) Cyathium inflorescence
 - d) T.S. of *Typha* leaf
 - e) Ecological adaptations in Epiphytes
 - f) Tapetum