

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Draw neat and labelled diagrams wherever necessary.
  3. Figures to the right indicate full marks.

- Q. 1** Attempt any two: (15)
- a. With reference to Fossil Flora; explain location, collection and maintenance of Fossil records.
  - b. Give a brief account of structure of *Lepidodendron* stem. Add a note on its systematic position.
  - c. Describe reproductive structures of *Pentoxylon*.
  - d. Explain the stem of *Lyginopteris*. Add a note on its systematic position.
- Q. 2** Attempt any two: (15)
- a. Give the classification, distinguishing characters and floral formula of family Asclepiadaceae.
  - b. Describe the morphological peculiarities, systematic position and economic importance of family Labiatae.
  - c. Discuss the classification, distinguishing characters and economic importance of family Graminae.
  - d. With reference to Taxonomic Literature explain :-
    - i. Index
    - ii. Journals
- Q. 3** Attempt any two: (15)
- a. Discuss the application of palynology in Coal and Oil exploration.
  - b. Describe various tests carried out to determine pollen viability.
  - c. Explain various factors affecting growth of pollen tube.
  - d. Give a brief account of NPC system of classification for pollen grains.
- Q. 4** Attempt any two: (15)
- a. Give a brief account of ecological adaptations in Xerophytes.
  - b. Describe in detail various ecological adaptations in epiphytes.
  - c. Explain in detail morphological and anatomical adaptations in halophytes.
  - d. Give an account of any two types of root – stem transition in plants.
- Q. 5** Write short notes on any three: (15)
- a. Fruit of Rutaceae
  - b. Ecological adaptations of Sciophytes
  - c. Anatomical adaptations of mesophytes
  - d. *Lepidostrobus*
  - e. Pollen allergy
  - f. Mellitopalynology
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