

Time: 3 Hours.

Max. Marks: 100

- Instructions:**
1. All questions are compulsory.
 2. Draw neat and labeled diagrams wherever necessary.
 3. All questions carry equal marks
 4. Internal choices are indicated.

Q1. Attempt any **two** of the following questions: (20)

- A) Describe the structure of *Lepidostrobus*
- B) Write a detail note on external & internal structure of stem of *Lyginopteris oldhamia* and add a note on its systematic position.
- C) Describe the external and internal structure of *Pentoxylon*.
- D) Discuss the contribution of Birbal Sahni to Paleobotany.

Q2. Attempt any **two** of the following questions: (20)

- A) Give the morphological peculiarities and systematic position of family Umbelliferae.
- B) Give the classification, floral formula & any three plants of economic importance of family Rubiaceae.
- C) Give different forms of regular polypetalous corolla studied by you.
- D) Discuss the merits and demerits of Bentham & Hooker's system of classification.

Q3. Attempt any **two** of the following questions: (20)

- A) What is anomalous secondary growth? Describe the same in the stem of *Bignonia*.
- B) Describe and explain the nature of anomalous secondary growth in the stem of *Achyranthus*.
- C) What are Stomata. Describe the Anisocytic and Anomocytic type of stomata studied by you.
- D) Explain root-stem transition with any Two types studied by you.

Q4. Attempt any **two** of the following questions: **(20)**

- A) With neat labelled diagram explain sporoderm stratification of pollen grain.
- B) Explain the role of Palynology in Honey industry.
- C) Give a detail account of Erdtman's NPC system of pollen classification
- D) With respect to pollen grain explain polarity, shape and symmetry of pollen grains.

Q5. Write short notes on any **four** of the following: **(20)**

- a) Valvate and twisted types of aestivation
- b) Palynology in relation to Forensic science.
- c) Parts and functions of a typical carpel
- d) Diagrammatic representation of T.S. of Dracaena stem.
- e) Crossotheca
- f) Economic importance of family Solanaceae
