

Time: 3 Hours.

Max.Marks:100

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

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

- Describe the structure of *Lepidocarpon*.
- Describe the male reproductive organ of *Lyginopteris* (Crossotheca).
- Describe the reproductive structures of *Pentoxylon*.
- Write a detail note on Birbal Sahni Institute of Paleobotany.

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

- Give the morphological peculiarities and systematic position of family-Capparidaceae.
- Give the classification, distinguishing characters, floral formula & any three plants of economic importance of family Graminae.
- What is adhesion of stamens? Describe the different types citing suitable examples.
- Give an outline of Bentham & Hooker's system of classification.

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

- What is anomalous secondary growth? Describe the same in the stem of *Dracena*.
- Describe the anomalous secondary growth in the stem of *Salvadora*.
- Describe any three types of stomata studied by you.
- What is root-stem transition? Explain any two types.

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

- Explain various Exine stratifications in angiospermic pollen.
- Discuss the role of palynology in coal and oil exploration.
- Describe NPC system of classification for angiospermic pollen grain.
- What are the various factors affecting growth of pollen tube?

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

- Diagrammatic representation of Secondary growth in *Bignonia* stem
- Excrecences of pollen grains.
- Male flower of Cucurbitaceae
- Give any two types of aestivation
- T.S. of *Pentoxylon* stem
- Economic importance of Umbelliferae

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