

15/11/2022 Sem 5 NYBSZ Botany Nov 20

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 *Salyadora*.
- 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
- Excrescences of pollen grains.
- Male flower of *Cucurbitaceae*.
- Give any two types of aestivation
- T.S. of *Pentoxylon* stem
- Economic importance of *Umbelliferae*
