

Note:

1. All the questions are compulsory.
2. Draw neat & suitable diagrams wherever necessary.
3. Figures to the right indicate full marks.

Q.1A Choose the correct option & rewrite the statements**(10 marks)**

1. _____ produce ascospores in an ascus.
a. Slime molds b. Dimorphic fungi c. Club fungi d. Sac fungi
2. An example of wood rotting fungi is _____.
a. *Xylaria* b. *Puccinia* c. *Penicillin* d. *Alternaria*
3. Powdery mildew fungi belong to the family _____.
a. Erysiphaceae b. Hypocreaceae c. Hypomycetaceae d. Nectriaceae
4. _____ lichen is a pioneer in xerosere.
a. Fruticose lichen b. Foliose lichen c. Crustose lichen d. Leprose lichen
5. _____ are vascular plants.
a. Algae b. Fungi c. Bryophytes d. Pteridophytes
6. In *Selaginella*, _____ is regarded as an organ of *sui-generis*.
a. Leaf b. Stem c. Root d. Rhizophore
7. _____ are present in the stem of *Selaginella* as endodermis.
a. Epiblema b. Trabeculae c. Sclerenchyma d. Chlorenchyma
8. _____ is the characteristic of the secondary wood of *Pinus*.
a. Vessels are present b. Resin ducts are absent c. Resin duct are present d. Resin cells are present.
9. Popular dry fruit " Chilgoza" is produced by _____.
a. *Pinus sylvestris* b. *Pinus monophylla* c. *Pinus gerardiana* d. *Pinus roxburghii*
10. In Coniferophyta, the Pollination is by wind i.e. _____.
a. Anemophilous b. Hydrophilous c. Ornithophilous d. Entomophilous

Q.1B Answer the following in one sentence**(10 marks)**

- a. What is function of haustorium?
- b. What is called acervulus?
- c. Define :- Heterophyllum
- d. What is Endosporic condition?
- e. Explain the structure of Stem observed in Coniferophytes.

Q.2 Answer any two from the following**(20 marks)**

- a. With the help of neat labeled diagram explain reproduction in *Erysiphe*.
- b. Explain the life cycle of *Xylaria*.
- c. Describe the structure of lichen, and give names of its three different types. What is the nature of this fungal association?
- d. Explain symptoms, causal organism, disease cycle and control measure of Late blight of Potato.

Q.3 Answer any two from the following**(20 marks)**

- a. With the help of a neat labeled diagram explain the T.S. of stem in *Selaginella*.
- b. External Morphology and T.S. of stem in *Selaginella*.

- c. Enlist the different types of fossils.
- d. Explain the alternation of generation in *Selaginella*. Add a note on external morphology of *Selaginella*.

Q.4 Answer any two from the following**(20 marks)**

- a. Enlist the general characteristics of Class Coniferophyta.
- b. Explain external morphology of *Pinus* and add a note on economic importance of it.
- c. Explain the T.S of needle of a *Pinus* and draw a neat labeled diagram.
- d. Explain the External morphology of *Cordaitea* and add a note on its T.S. of Root (*Amyelon*).

Q.5 Write short notes on (any four)**(20 marks)**

- a. Harmful activities of Ascomycetes.
- b. Cephalodia
- c. Systematic position in *Rhynia*.
- d. Vegetative reproduction in *Selaginella*.
- e. Germination of the *Pinus* Seed.
- f. Explain the structure of Female Strobilus in *Cordaitea*.

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