

[Time: Three Hours]

[Marks: 100]

N.B: 1. All questions are compulsory.

2. Figures to the right indicate full marks.

3. Draw neat and labelled diagrams wherever necessary.

Q.1 (A) Choose the correct option from the following and rewrite the sentence. (10)

- i) Ascomycetes is also known as _____
a) club fungi
b) sac fungi
c) fungi-algae
d) imperfect fungi
- ii) *Xylaria* is commonly known as _____.
a) powdery mildew
b) rust
c) blight
d) dead man's finger
- iii) *Usnea* is an example of _____ Lichen.
a) crustose
b) foliose
c) fruticose
d) terricolous
- iv) _____ can be controlled by dusting Sulphur.
a) Powdery mildew
b) Late blight of potato
c) Rust
d) Smut
- v) In *Selaginella*, the rhizophores, are positively _____.
a) phototrophic
b) autotrophic
c) geotropic
d) heterotrophic
- vi) The fossil, transformation of the organic tissue into stone is called _____.
a) Cast
b) Compression
c) Impression
d) Petrification

- vii) In *Rhynia* the T.S. of stem shows _____.
 a) siphonostele
 b) protostele
 c) solenostele
 d) eustele
- viii) _____ is the largest order of living gymnosperm.
 a) Cordaitales
 b) Ginkgoales
 c) Coniferales
 d) Gnetales
- ix) *Cordaitea* seeds are assigned to the genus _____.
 a) *Artisia*
 b) *Amyelon*
 c) *Cordiaanthus*
 d) *Cardiocarpus*
- x) In *Pinus* stem, the stele is _____.
 a) siphonostele
 b) protostele
 c) eustele
 d) solenostele

(B) Answer the following in one or two sentences:

(10)

- i) What is perithecium?
- ii) State any two uses of Lichen with example.
- iii) What is an amber?
- iv) Name two types of vegetative reproduction in *Selaginella*.
- v) Name any two species of *Pinus*.

Q.2 Answer any two of the following:

(20)

- i) Give an account of general characters of ascomycetes.
- ii) Explain in detail the sexual reproduction in *Erysiphe*.
- iii) Describe the sexual reproduction of *Xylaria*.
- iv) Give the causal organism, symptoms, and disease cycle of Powdery mildew. Add a note on its control measure.

Q.3 Answer any two of the following:

(20)

- i) Give an account of Psilophyta. Add a note on its classification up to order.
- ii) With the help of neat labelled diagram, describe T.S. of stem of *Selaginella*.
- iii) Explain the process of fossilization. Add a note on Cast.

- iv) With reference to *Rhynia*, explain-
(a) External morphology (b) internal structure of stem

Q.4 Answer any two of the following: (20)

- i) Enlist salient features of Coniferophyta.
- ii) With the help of neat labeled diagram explain internal structure of *Pinus* old stem.
- iii) Describe the L.S of female cone in *Pinus*. Add a note on V.S. of ovule.
- iv) Give a detailed account of the internal structure of *Cordaitea* stem. Add a note on its systematic position.

Q.5 Write short notes. (Any Four) (20)

- i) Systematic position of *Erysiphe*.
- ii) V.S. of homiomorous lichen thallus.
- iii) T.S. of rhizophore of *Selaginella*.
- iv) Systematic position of *Rhynia*
- v) T.S. of *Pinus* needle.
- vi) Female Strobilus of *Cordaitea*
