

Note:

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

Q 1. A. Choose the correct option & rewrite the statements:

(10 Marks)

1. *Sargassum* belongs to the Class _____.
a. Phaeophyceae b. Chlorophyceae c. Bacillariophyceae d. Rhodophyceae
2. *Nostoc* colonies are characteristically found in the thallus of _____.
a. *Riccia* b. *Marchantia* c. *Anthoceros* d. *Pellia*
3. Protonema is the _____ stage of haploid generation in *Funaria*.
a. Adult b. Juvenile c. Sporophytic d. Saprophytic
4. Rank ending '-ales' denotes _____.
a. family b. genus c. order d. series
5. Ray and disc floret are present in the family (sub-family) _____.
a. *Amaranthaceae* b. *Fabaceae* c. *Asteraceae* d. *Caesalpiniaceae*
6. Stamens arranged in two bundles are botanically termed as _____.
a. dibundlous b. diadelphous c. monadelphous d. monobundlous
7. In Thin Layer Chromatography _____ is most widely used adsorbent.
a. Silica Gel powder b. Starch c. Alumina powder d. Calcium carbonate powder
8. If the magnification of the eyepiece (lens) is 10x and that of the objective piece (lens) is 100x, what will be the magnification ?
a. 150x b. 500x c. 1000x d. 110x
9. _____ is used to put pressure on plants for drying while making a herbaria.
a. Pressure Box b. Plant Canister c. Plant Press d. Press tool
10. AGE stands for _____.
a. Agarose Gel Electrophoresis b. Agar Gel Electrophoresis c. Alumina Gel Electrophoresis d. Acrylamide Gel Electrophoresis

Q 1. B Answer the following in one sentence

(10 Marks)

- a. Crypoblasts
- b. Chemotaxis
- c. Give the principle I of International code of Nomenclature for algae fungi and plants
- d. Any 2 stains used in Electrophoresis
- e. Formula for Rf

Q 2. Answer the following questions (Any two)

(20 Marks)

- a. Give systematic position and describe structure of thallus in *Sargassum*.
- b. Give a general account of the class Musci.
- c. Describe the internal morphology of sporophyte in *Anthoceros*.
- d. Describe the reproductive structures of *Funaria*.

Q 3. Answer the following questions (Any two)**(20 Marks)**

- Explain ecology in relation to taxonomy.
- Explain principle II of the international code of Algae, Fungi and Plants.
- Give the classification with reason, distinguishing characters and any two plants of economic importance of the family *Amaranthaceae*.
- Give the classification with reason, distinguishing characters and any two plants of economic importance of the family *Fabaceae*.

Q 4. Answer the following questions (Any two)**(20 Marks)**

- Define Chromatography. Add a note on types of paper chromatography and its applications.
- Compare and contrast between Horizontal & vertical electrophoresis.
- Explain in detail the Dry method of plant preservation. What is the significance of plant preservation?
- Enlist & Elaborate on the parts of a compound microscope.

Q 5. Short Notes (Any four)**(20 Marks)**

- Structure and development of oogonia in *Sargassum*.
- Vegetative reproduction in *Funaria*.
- Give the economic importance of *Arecaceae*.
- Give the classification of the family *Caesalpiniaceae*.
- Staining methods used in electrophoresis
- Wet method of plant preservation

-X-X-X-X-X-X-X-