

Please check whether you have got the right question paper.

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:

10

- a. Fusion between gametes of unequal sizes is called _____
i) Isogamy ii) Anisogamy iii) Oogamy iv) Dichotogamy
- b. Rhizoids in *Anthoceros* thallus are _____
i) Unicellular ii) Multicellular iii) Tuberculated iv) Scale like
- c. Stem like structure present in the *Funaria* thallus is called as _____
i) Rhizoids ii) Phylloids iii) Meristem iv) Cauloid
- d. Rank ending '-ceae' denotes _____
i) Family ii) Division iii) Cohort iv) Class
- e. _____ is father of Taxonomy.
i) Carl Linnaeus ii) Charles Darwin iii) Janaki Ammal iv) Hargovind Khurana
- f. *Butea monosperma* is commonly known as _____
i) Pea ii) Gokarna iii) Supari iv) Palash
- g. 'K' in floral formula refers to _____
i) Calyx ii) Corolla iii) Androecium iv) Gynoecium
- h. _____ is used as stationary phase.
i) Silica gel ii) Alumina iii) CaCO_3 iv) All of the above
- i. _____ is used as preservative for plant specimens.
i) Glycerin ii) Formalin iii) Mercuric chloride iv) None of the above
- j. Electrophoresis works on the principle of _____ of the charged molecules in the presence of electric field.
i) affinity ii) partition iii) differential migration iv) separation

Q.1 B) Answer the following in **one sentence**:

10

- a. Which part of *Anthoceros* sporophyte shows presence of columella?
- b. What is Protonema in *Funaria*?
- c. Define nomenclature.
- d. Syngenesious anthers.
- e. Define Chromatography

- Q.2 Answer **any two** from the following: 20
- Write down the classification of the *Sargassum* with appropriate reasons.
 - Explain the life cycle of *Sargassum* and add a note on its economic importance.
 - Write in detail about the alternation of generations in *Anthoceros* life cycle.
 - Describe the internal structure of *Fumaria* sporogonium.
- Q.3 Answer **any two** from the following: 20
- Give classification, distinguishing characters, floral formula of family Palmae
 - Give a comparative account of sub-families of Leguminosae.
 - Define plant nomenclature. Discuss the principles of International Code of Botanical Nomenclature (ICBN).
 - Assign the given plants to their respective families giving reasons and give its economic importance of *Cocos nucifera* and *Acacia Arabica*
- Q.4 Answer **any two** from the following: 20
- Elaborate on significance of herbarium.
 - Explain in detail working of light microscope
 - Discuss any two types of paper chromatography
 - Give a detail on component of Horizontal gel electrophoresis.
- Q.5 Write Short notes on (**any four**): 20
- L.S of *Sargassum* phylloclade with diagram.
 - Vegetative reproduction in class Musci.
 - Ray and disc florets of Asteraceae.
 - Taxonomy in relation to Anatomy.
 - Wet preservation
 - Staining dyes

-----XXXX-----