

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:

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- a. Phaeophyta is commonly called as \_\_\_\_\_.  
i) Green algae ii) Brown algae iii) Golden algae iv) Purple algae
- b. *Anthoceros* is commonly known as \_\_\_\_\_.  
i) Stoneworts ii) Liverworts iii) Hornworts iv) Bladderworts
- c. Plant body is differentiated into rhizoids, cauloids and phylloids in \_\_\_\_\_.  
i) *Funaria* ii) *Zygnema* iii) *Spirogyra* iv) *Hibiscus rosa-sinensis*
- 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. \_\_\_\_\_ is a technique used for separation of compounds from mixture.  
i) Chromatography ii) Electrophoresis iii) Colorimetry iv) Centrifugation
- h. Full form of TLC is \_\_\_\_\_.  
i) Thick Layer Chromatography ii) Thin Layer Chromatography  
iii) Thin Layer Centrifugation iv) Thin Line Chromatography
- i. \_\_\_\_\_ is used to put pressure on plants for drying while making a herbaria.  
i) Pressure Box ii) Plant Canister iii) Plant Press iv) Press tool
- j. If the magnification of the eyepiece (lens) is 10x and that of the objective piece (lens) is 15x, what will be the magnification?  
i) 100x ii) 50x iii) 115x iv) 150x

Q.1

B) Answer the following in **one sentence**:

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- a) Define phycology
- b) Cryptoblasts
- c) Define nomenclature.
- d) Syngenesious anthers.

e) Define Electrophoresis.

Q.2 Answer **any two** from the following:

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- Give systematic position and describe structure of thallus in *Sargassum*.
- Describe the range of thallus structure in the members of Phaeophyta.
- Explain sporogenesis, dehiscence of capsule and germination of spores in *Anthoceros*.
- Describe the sporophyte of *Funaria*.

Q.3 Answer **any two** from the following:

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- 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).
- Explain the goals and objectives of systematics.

Q.4 Answer **any two** from the following:

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- What is the meaning of the term Chromatography? Add a note on types of paper chromatography.
- Explain in detail the Dry method of plant preservation. What is the significance of plant preservation?
- Elaborate on steps of plant specimen preparation for electron microscopy.
- Write a note on parts of the Electrophoretic unit/ apparatus.

Q.5 Write Short note on (any four):

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- Structure and development of oogonia in *Sargassum*.
- Vegetative reproduction in *Funaria*.
- Ray and disc florets of Asteraceae.
- Taxonomy in relation to ecology
- Applications of TLC
- Staining methods used in electrophoresis

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