

7/10/2022

VCD-\_\_\_\_\_ S.Y.BSc

Semester III

Botany I

100 Marks

3 Hrs.

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.**

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Q.1

A) Choose the **correct option** from the following:

- a. *Sargassum* belongs to the Class \_\_\_\_\_.  
i) Phaeophyceae ii) Chlorophyceae iii) Bacillariophyceae iv) Rhodophyceae
- b. *Nostoc* colonies are characteristically found in the thallus of \_\_\_\_\_.  
i) *Riccia* ii) *Marchantia* iii) *Anthoceros* iv) *Pellia*
- c. Protonema is the \_\_\_\_\_ stage of haploid generation in *Funaria*.  
i) Adult ii) Juvenile iii) Sporophytic iv) Saprophytic
- d. Ray and disc floret are present in the family \_\_\_\_\_.  
i) Leguminosae ii) Asteraceae iii) Amaranthaceae iv) Palmae
- e. In hypogynous flowers, the ovary is \_\_\_\_\_.  
i) Superior ii) Inferior iii) Semi-inferior iv) Semi-superior
- f. According to the principle of the International code of Nomenclature for algae, fungi, and plants: The application of name is determined by means of \_\_\_\_\_.  
i) Taxonomic type ii) Nomenclatural Type iii) any specimen iv) Herbarium
- g. \_\_\_\_\_ is a technique where samples separate due to the presence of an electric field.  
i) Chromatography ii) Centrifugation iii) Electrophoresis iv) Colorimetry
- h. If the magnification of the eyepiece (lens) is 10x and that of the objective piece (lens) is 45x, what will be the magnification?  
i) 450x ii) 150x iii) 100x iv) 1000x
- i. \_\_\_\_\_ is called the father of Chromatography.  
i) Gregor Mendel ii) Michael Tswett iii) Luca Ghini iv) Carl Linnaeus
- j. For keeping the plant materials fresh before pressing it is stored in a \_\_\_\_\_.  
i) Plastic pouch ii) Wooden Box iii) Vasculum iv) Bottle

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Q.1

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

- a) Slime pores
- b) Chemotaxis

- c) What is plant taxonomy?
- d) Give the principle no. 1 of International code of Nomenclature for algae fungi and plants.
- e) Plant Press for herbarium

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

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- a) Describe alternation of generations in *Sargassum* and enlist the economic importance of *Sargassum*.
- b) Give a general account of the class Anthocerotae.
- c) Describe the internal morphology of sporophyte in *Anthoceros*.
- d) Describe the external and internal morphology of *Funaria*.

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

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- a) Give classification, distinguishing characters, floral formula of family Asteraceae.
- b) Assign the given plants to their respective families giving reasons and give its economic importance of *Phoenix sylvestris* and *Saraca asoca*
- c) Taxonomy in relation to Palynology and Anatomy
- d) Give comparison of three sub-families of Leguminosae.

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

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- a) Write a note on field equipments and articles required for preparation of herbarium.
- b) Elaborate on the parts of a compound microscope
- c) Compare and contrast between Horizontal & vertical electrophoresis.
- d) Explain in detail the process of Thin Layer Chromatography.

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

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- a) T.S. of axis in *Sargassum*
- b) Vegetative reproduction in *Anthoceros*.
- c) Papilionaceous corolla.
- d) Any 4 plants from the family Arecaceae with their economic importance.
- e) Role of herbarium
- f) Types of paper chromatography

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