

[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.1A Choose the correct answer and Rewrite the sentence.**10**

- i Sexual reproduction in *Sargassum* occurs through production of sex organs inside _____.
a) airbladders b) conceptacle c) apical branches d) cryptoblasts
- ii Phaeophytes are commonly known as _____.
a) green algae b) blue green algae c) brown algae d) red algae
- iii *Anthoceros* is a _____.
a) Algae b) Fungi c) Bryophyte d) Phaeophyte
- iv In *Funaria*, each set of peristome consist of _____.
a) 16 teeth b) 32 teeth c) 18 teeth d) 8- teeth
- v Asteraceae is characterised by _____ inflorescence.
a) Capitulum (Head) b) Corymb c) Cymose d) Cyathium
- vi The family leguminosae is divided into _____ subfamilies.
a) 2 b) 4 c) 3 d) 0
- vii The family Amaranthaceae belongs to the series _____.
a) inferae b) bicarpellatae c) curvembryae d) calycinae
- viii Plants can also be collected in _____ which is a tin box with lid.
a) vasculum b) tray c) cylinder d) crate
- ix The mobile phase in Paper Chromatography is _____.
a) Liquid b) Solid c) Gas d) Inert
- x A technique wherein there is migration of charged particles in liquid medium under the influence of an electric field is called _____.
a) Electrophoresis b) Colorimetry
c) Chromatography d) Autoradiography

Q.1B Answer in one or two sentences

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- i Mention any two economic importance of brown algae
- ii Mention the function of columella in capsule of *Anthoceros*.
- iii Describe papilionaceous corolla
- iv Mention any two rules of ICBN
- v Name an equipment used for herbarium making.

Q.2 Answer any two of the following.

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- i Explain the alternation of generations in the life cycle of *Sargassum*.
- ii Give an account of general characters of Phaeophyta.
- iii With the help of diagram, describe the internal structure of sporophyte in *Anthoceros*
- iv. Describe the external and internal structure of sporophyte *Funaria*.

Q.3 Answer any two of the following.

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- i Give classification, distinguishing characters and floral formula of sub family Caesalpinaceae.
- ii Assign any two plants to their respective families giving reasons and give their economic importance
 - a) *Eclipta alba*
 - b) *Mimosa pudica*
 - c) *Celosia argentea*
- iii Discuss the importance of Anatomy in relation to Taxonomy.
- iv Give a detailed account on objectives and goals of plant systematics.

Q.4 Answer any two of the following.

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- i Explain the principle and working of light microscope.
- ii Describe the dry method of plant preservation.
- iii Write an account on paper chromatography & its applications
- iv Explain the working and principle of Horizontal Electrophoresis

Q 5. Write short notes on any four.

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- i Systematic position of *Sargassum*
- ii Vegetative reproduction in *Anthoceros*
- iii Economic importance of family Palmae
- iv Economic importance of subfamily Papilionaceae
- v Advantages of chromatography
- vi Wet preservation of plants.