

2024

**BOTANY — HONOURS****Paper : DSCC-1****(Plant Diversity)****Full Marks : 75***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer **any six** of the following questions :
  - (a) What is carbon sequestration? 2
  - (b) Name two algae from which human food is obtained? 1+1
  - (c) What is 'VAM'? 2
  - (d) Why do bryophytes are called amphibians in plant kingdom? 2
  - (e) Define coenosorus. Where is it found? 1+1
  - (f) Distinguish manoxylic and pycnoxylic wood. 2
  - (g) Distinguish between microphyll and megaphyll. 2
  - (h) Define 'pappus'. Where is it found? 1+1
  - (i) Define basal placentation. Give an example. 1+1
  
2. Answer **any three** of the following :
  - (a) Characterize Ascomycotina. Give an example. 4+1
  - (b) State three diagnostic features of Bryopsida. Mention two economic importances of bryophytes. 3+2
  - (c) Mention the diagnostic features of Psilophyta with suitable examples. 4+1
  - (d) Write a brief note on economic importance of gymnosperms with reference to wood, resin and drugs. 5
  - (e) Write a note on various modifications of roots found in angiosperms. 5
  
3. Answer **any four** of the following questions :
  - (a) State the diagnostic features of Charophyceae and Phaeophyceae. Mention the importance of algae in agriculture and biotechnology. 3+3+3+3
  - (b) State the diagnostic features of Zygomycotina. Write a note on the importance of fungi as a source of food and medicine. 4+4+4

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- (c) Give an outline of the classification of pteridophytes as proposed by Gifford and Foster (1989). Mention the salient features of Filicophyta. Name one homosporous and one heterosporous pteridophyte. 6+4+1+1
- (d) Write down the characteristic features of Progymnospermophyta. State the diagnostic characters of Cycadophyta with example. 6+5+1
- (e) Distinguish racemose and cymose inflorescences with suitable examples. Write short notes on spikelet, cyathium and verticillaster inflorescences. 6+2+2+2
- (f) Draw and describe different forms of polypetalous corolla. Describe various types of dehiscent fruits with examples. 6+6