

2025

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* questions :**

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| (a) What is meant by RNA world? | 2 |
| (b) Name the pigments found in Phaeophyceae and Rhodophyceae. | 1+1 |
| (c) What are holocarpic and eucarpic fungi? Give examples. | 1+1 |
| (d) What is dolipore septum? Where is it found? | 1+1 |
| (e) What is peristome teeth? Where is it found? | 1+1 |
| (f) What is eusporangiate mode of sporangial development? Give example. | 1+1 |
| (g) What is 'Sulphur Shower'? | 2 |
| (h) What is gynostegium? Give an example. | 1+1 |
| (i) Give an example each of capsule and caryopsis. | 1+1 |

2. Answer *any three* questions :

5×3

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| (a) Explain the role of plants as source of food and fuel. |
| (b) Briefly discuss the importance of lichen and mycorrhiza. |
| (c) Write a brief note on economic importance of pteridophytes as food and medicine. |
| (d) Write the salient features of Gnetophyta. |
| (e) Describe briefly various types of placentation with diagram. |

3. Answer *any four* questions :

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| (a) State the salient features of Chlorophyceae and Rhodophyceae. Mention the importance of Cyanobacteria in agriculture. | 4+4+4 |
| (b) State the salient features of Deuteromycotina. Give an outline of classification of Fungi, up to Sub-division (Ainsworth, 1973). Comment on the medicinal importance of fungi. | 4+5+3 |
| (c) Compare the sporophytes of Hepaticopsida, Anthocerotopsida and Bryopsida with suitable diagram. | 12 |

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- (d) Compare Sphenophyta and Filicophyta. Write down the salient features of Lycophyta. Distinguish between sorus and synangium. 6+4+2
- (e) Give an outline classification of gymnosperm as proposed by Gifford and Foster (1989). Compare the male cones of Cycadophyta and Coniferophyta, with diagram. What is amber? 4+6+2
- (f) Mention different types of schizocarpic fruits with example. What is Kernel? Distinguish between albuminous and ex-albuminous seeds with examples. 6+2+4
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