

2023

BOTANY — HONOURS

Paper : DSCC-1

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.*MURALIDHAR GIRLS' COLLEGE
LIBRARY1. Answer **any six** of the following :

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|---|-----|
| (a) What is meant by RNA world? | 2 |
| (b) Mention the pigments responsible for blue-green coloration in Cyanophyceae. | 2 |
| (c) What is dolipore septum? | 2 |
| (d) Distinguish between ascus and basidium. | 2 |
| (e) Give one example of a thallose bryophyte and a foliose bryophyte. | 1+1 |
| (f) Define sorus. Where is it found? | 1+1 |
| (g) What are progymnosperms? Give one example. | 1+1 |
| (h) What are syngenesious and synandrous stamens? | 1+1 |
| (i) Mention two distinguishing features of balausta and hesperidium. | 2 |

2. Answer **any three** of the following :

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|---|-----|
| (a) Explain the role of plants in carbon sequestration. | 5 |
| (b) Characterize Basidiomycotina. Name two fungi which are used as food. | 3+2 |
| (c) State the diagnostic features of Anthocerotopsida. Why bryophytes are known as 'amphibians of plant kingdom'? | 3+2 |
| (d) State the importance of pteridophytes as sources of food, medicine and in agriculture. | 5 |
| (e) Describe briefly various types of placentation with suitable examples. | 5 |

3. Answer **any four** of the following :

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| (a) Comment on the criteria and basis of Fritsch's Classification (1935). State the salient features of Cyanophyceae and Rhodophyceae. | 6+(3+3) |
| (b) Give an outline of the classification of fungi as proposed by Ainsworth (1973) up to subdivision. Comment on the importance of lichens and mycorrhizae in human welfare and agriculture. | 6+(3+3) |

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- (c) Compare Lycophyta and Sphenophyta. Distinguish microphylls and megaphylls with examples. Distinguish eusporangiate and leptosporangiate ferns. 6+4+2
- (d) Write the salient features of Coniferophyta and Gnetophyta. Why Gnetophyta are considered as advanced among gymnosperms? State the essential oil yielding plants of gymnosperms and their uses. (3+3)+3+3
- (e) What do you mean by aestivation? Draw and describe various types of aestivation with suitable examples. 2+10
- (f) Draw and describe various forms of gamopetalous corolla with examples. Distinguish albuminous and exalbuminous seeds with examples. 8+4

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