

2022

**BOTANY — HONOURS**

**Paper : CC-7**

**(Plant Systematics)**

**Full Marks : 50**

*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 five** of the following questions :

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|--|-----|
| (a) What is meant by tautonym? Give one example.             | 1+1 |
| (b) State the importance of encyclopaedic phase.             | 2   |
| (c) What do you mean by acronym 'P' and 'CAL'?               | 1+1 |
| (d) Distinguish between Polyphyletic and Paraphyletic group. | 2   |
| (e) What is cladogram?                                       | 2   |
| (f) What is ochreate stipule and where is it found?          | 1+1 |
| (g) What is meant by resupination?                           | 2   |

2. Write brief notes on **any two** of the following :

5×2

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|---|
| (a) Valid publication of a species        |
| (b) Principles of ICN                     |
| (c) Role of herbaria in plant systematics |
| (d) Numerical Taxonomy.                   |

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

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|---|-------|
| (a) Give a broad outline of Takhtajan System of Classification (1991). Mention one merit and one demerit of this classification. Distinguish between natural and phylogenetic system of classification. | 6+2+2 |
| (b) Mention the diagnostic characters of the family Poaceae. State its systematic position as treated by Bentham and Hooker's system of classification. Name three species of economic importance.      | 5+2+3 |
| (c) Compare flower characters of the family Solanaceae and Scrophulariaceae. Draw floral diagram and mention floral formula of both families.   | 5+3+2 |

X(3rd Sm.)-Botany-H/CC-7/CBCS

(2)

- (d) Name the family where the following character is found and mention four diagnostic characters of the respective family : (1+4)×2
- (i) Vittae
  - (ii) Synandrous stamen.
- (e) Write notes on *any two* of the following : 5×2
- (i) Author citation of scientific name
  - (ii) Supportive evidences from cytology in Taxonomy
  - (iii) Plesiomorphic characters of Nymphaeaceae
  - (iv) APG III Classification.
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