



‘সমানো মন্ত্র: সমিতি: সমানী’

**UNIVERSITY OF NORTH BENGAL**

B.Sc. Honours 4th Semester Examination, 2022

**CC10-BOTANY**

**PLANT SYSTEMATICS**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

**GROUP-A**

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is tautonym?
  - (b) Give the full form of ICN.
  - (c) What do you mean by rule of priority?
  - (d) Name any two important botanical gardens of India.
  - (e) What is molecular systematics?
  - (f) What do you mean by virtual herbarium?
  - (g) What is the main advantage of an indented key?
  - (h) Which family has verticillaster inflorescence?

**GROUP-B**

2. Answer any **three** questions from the following: 5×3 = 15
- (a) Write short notes on: 2½ + 2½ = 5
    - (i) Typification
    - (ii) Effective publication.
  - (b) Write short notes on APGIII system of classification. 5
  - (c) Write importance of phylogenetic system of classification. 5
  - (d) Give a short account of the Biological species concept. Comment on the advantages and disadvantages of applying this concept. 3+2 = 5
  - (e) Briefly describe the diagnostic features of family Asteraceae. 5

**GROUP-C**

3. Answer any *two* questions from the following: 10×2 = 20
- (a) Give an outline classification of angiosperms as proposed by Bentham and Hooker. State the merits and demerits of the classification. How Bentham and Hooker plant classification differ from Takhtajan's system of plant classification? 4+4+2 = 10
- (b) What do you mean by palynology? How the pollen keys are used to categorise plants of a family at various taxonomic levels? 2+8 = 10
- (c) Enumerate various types of homology. Write a brief note on monophyly, paraphyly and polyphyly. 4+6 = 10
- (d) Compare and contrast the diagnostic feature of family Commelinaceae and Poaceae. 10

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