

B.Sc. Semester-IV Examination, 2022-23**BOTANY [Honours]**

Course ID : 41313 Course Code : SH/BOT/403/C-10

Course Title : Plant Systematics

Time : 1 Hour 15 Minutes Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I**

1. Answer any **five** of the following: $1 \times 5 = 5$
- What is meant by taxonomic hierarchy?
 - What is a Monograph?
 - Define a species.
 - In which family do you find caruncle?
 - What is the highest category recognised by Takhtajan(1980) in his classification of Angiosperms?
 - What is meant by clade in phylogeny of Angiosperms?
 - Name one botanic garden in India of International repute.

*[Turn Over]***UNIT-II**

2. Answer any **two** of the following: $5 \times 2 = 10$
- Describe the floral organisation of Magnoliaceae and mention the primitive features of the family. $3 + 2 = 5$
 - Write the diagnostic features of Musaceae. Name one tree species of this family. $4 + 1 = 5$
 - What are nomenclatural types? Explain Holotype and Syntype with proper examples. $1 + 4 = 5$
 - Write in brief the role of phytochemistry in taxonomy. 5

UNIT-III

3. Answer any **one** of the following: $10 \times 1 = 10$
- Give an outline of the classification proposed by Bentham and Hooker. Mention two merits of this classification. $8 + 2 = 10$
 - Compare and contrast between the following: $2 \frac{1}{2} \times 4 = 10$
 - Parallelism and Convergence
 - Phenogram and Cladogram
 - Plesiomorphic characters and Apomorphic characters
 - Alpha Taxonomy and Omega Taxonomy