

U.G. 4th Semester Examination - 2022

BOTANY

[HONOURS]

Course Code : BOT-H-CC-T-08

(Taxonomy of Angiosperm & Plant Systematics)

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** of the following questions :

2×5=10

- a) What do you mean by Artificial System of Classification? Cite example. 1+1
- b) Define alpha and omega taxonomy. 1+1
- c) Define Monograph with example. 1+1
- d) Mention two important changes of Melbourne Code. 1+1
- e) Distinguish between syntype and isotype. 1+1
- f) What do you mean by Virtual Herbarium? Give examples. 1+1

g) Name the families on the basis of following characters: 1+1

i) Gynostemium

ii) Cyathium inflorescence

h) Name two economically important plants of Cucurbitaceae. 1+1

2. Answer any **two** of the following questions:

5×2=10

a) Write down the principles of ICN. 5

b) Discuss the functions of Herbarium. Name two important botanic gardens in West Bengal.

3+2

c) Define Chemotaxonomy. What do you mean by semantides? How do you distinguish between primary and secondary semantide?

2+2+1

d) Explain the term 'parallelism' and 'convergence' in terms of evolution.

2.5+2.5

3. Answer any **two** of the following questions:

10×2=20

a) Give the outline of Bentham & Hooker's system of classification of seed plants (up to series). Mention name of the book and year where it was published. Write two merits and two demerits of this system of Classification.

4+1+1+2+2

- b) Write down the diagnostic features of the family Poaceae with special references of its inflorescences. Mention its systematic position according to Cronquist(1988). Name two economically important plants of this family. (4+2)+2+2
- c) What do you mean by cluster analysis? Write the full form of OTU. Distinguish between Phenogram and Cladogram. What do you mean by heterobathmy? Explain with example. 2+1+4+2+1
- d) Write a short note on the inflorescences present in Asteraceae. Distinguish between Magnoliaceae and Rubiaceae on the basis of their floral features. Write two economically important plants of Rubiaceae. 4+4+2
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