

U.G. 5th Semester Examination - 2025**BOTANY****[MAJOR-VI]****Course Code : BOT-MJ-CC-T-6****[NEP-2020]**

Full Marks : 40

Time : $2\frac{1}{2}$ 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 questions of the following:

 $2 \times 5 = 10$

a) What are alpha taxonomy and omega taxonomy?

1+1

b) What is the difference between sapwood and heartwood?

c) Define monograph. Cite an example.

d) What is hypanthodium inflorescence? Cite one example.

1+1

e) What is pappus? In which family does it occur?

1+1

[Turn Over]

f) Write the names of two Botanical Garden of India. 1+1

g) Define lectotype.

h) Mention two primitive characters of the family Magnoliaceae.

2. Answer any two questions of the following:

5×2=10

a) Write down a note on Tunica-Corpus theory.

b) Write down the principles of ICN.

c) Discuss about the economic importance of the family Euphorbiaceae.

d) What is the significance of cytological studies in taxonomy? Give suitable examples.

3. Answer any two questions of the following:

10×2=20

a) Mention the name of the family with one medicinal plant and their uses where the following structures are found. $2\frac{1}{2} \times 4 = 10$

i) Diadelphous stamen

ii) Woody spathe

iii) Pollinia

iv) Carpophore

b) Describe the classification system proposed by Bentham & Hooker (1862-1883) up to series. Mention the merits and demerits of the system.

6+2+2

c) Define false fruit with examples. Discuss with sketches and example about the different types of dry dehiscent fruits. 2+8

d) What are different types of Cambium and state their function. Explain the anomalous secondary growth in *Boerhavia* sp. with suitable diagram.

4+(3+3)