

Total number of printed pages-4

3 (Sem-4/CBCS) BOT HC 3

2023

BOTANY

(Honours Core)

Paper : BOT-HC-4036

(Plant Systematics)

Full Marks : 60

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

1. Answer the following/Choose the correct answer : 1×7=7
- (a) Define cladogram.
 - (b) What the term 'Monochlamydeae' stands for ?
 - (c) Name the *three* most commonly used infraspecific categories.
 - (d) Who is considered as the father of modern genus concept ?

Contd.

(e) In most of the Indian herbarium, the specimens are arranged according to :

(i) Engler and Prantl's system

(ii) Bentham and Hooker's system

(iii) Charles Edwin Bessey's system of classification

(iv) Hutchinson's system

(f) What do you understand by phyllaries ?

(g) When two or more authors publish a new species or propose a new name, their names are linked using the epithet —

(i) in

(ii) ex

(iii) et

(iv) emend

2. Answer the following : 2×4=8

(a) Differentiate between homology and analogy.

(b) Mention the components of a reliable e-flora.

(c) Write the merits of APG system of classification.

- (c) Enumerate various types of homology. Write a brief note on monophyly, paraphyly and polyphyly. 3+7=10
- (d) What is phytochemistry ? Discuss some important sources of taxonomic evidences from phytochemistry. 2+8=10
- (e) What is meant by natural and phylogenetic system of classification ? Give an outline classification of angiosperm as proposed by Engler and Prantl. State the merit and demerit of the classification. 2+6+2=10
- (f) Give the scientific names of *any two* of the following plants, mention their respective families and also give the salient features of those families with their respective phylogeny. 5+5=10
- (i) Tobacco
 - (ii) Holy Basil
 - (iii) Banana
 - (iv) Oat