

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5875

J

Unique Paper Code : 2163580010

Name of the Paper : Plant Systematics

Name of the Course : **B.Sc. Applied Life Science with Agrochemicals
and Pest Management**

Semester : VI

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **FOUR QUESTIONS** in all. Question No. 1 is **COMPULSORY**.
3. Attempt **all** parts of the question together.

1. (a) Expand the following : (5)

(i) D.C.

(ii) IAPT

(iii) Nom.nud.

(iv) R.Br.

(v) Hook.f.

(b) Fill in the blanks (**any five**) : (5)

(i) The starting date Binomial nomenclature of seed plants is
_____ .

(ii) The size of herbarium sheet _____ cm × _____ cm.

P.T.O.

- (iii) Royal Botanic Garden is located at _____ .
- (iv) _____ is an angiosperm lacking vessels.
- (v) The occurrence of similar features in different species with a common ancestry is known as _____ .
- (vi) The occurrence of both advanced and primitive characters in a taxon is known as _____ .

(c) Give answer of the following : (5)

- (i) Name of a genus commemorating a person.
- (ii) The alternate name of family Guttiferae.
- (iii) An example of Tautonym.
- (iv) Name the author of Flora of Delhi
- (v) The starting date of binomial nomenclature

2. Write short notes **any three** of the following : (5×3=15)

- (a) Roles of an Herbarium
- (b) Rejection of names
- (c) Major Clades of APG IV classification
- (d) Biological species concept
- (e) Dichotomous keys

3. (a) Give an outline of Engler and Prantl's system of classification. (6)

- (b) Enlist four main differences between Bentham and Hooker's and Engler and Prantl's systems of classification. (4)

- (c) Interpret the following : (any five) (1×5=5)
- (i) *Rosa floribunda* 'Blessings'
 - (ii) X *Agropogon lutorus*
 - (iii) *Capparis lasiantha* R.Br. ex DC.
 - (iv) *Stellaria media* (L.) Vill.
 - (v) *Delphinium viscosum* Hook.f. et. Thomson
 - (vi) *Malilotus alba* Dess. in Lamk.
 - (vii) *Cerasus cornuta* Wall. ex Royle
4. (a) Explain how the information on distribution of flavonoids has helped in improving the classification of Centrospermae. (5)
- (b) Enlist the Principles of ICN. (7)
- (c) Give the endings of the ranks provided by the ICN: (3)
- (i) Division
 - (ii) Class
 - (iii) Tribe
5. Differentiate between any Five of the following : (5×3=15)
- (i) Phenogram and Cladogram
 - (ii) Tautonym and Autonym
 - (iii) Flora and Monographs
 - (iv) Taxonomic category and Taxonomic group
 - (v) Sibling species and Compilospecies
 - (vi) Parallelism and convergence

6. (a) Explain the difference between Ranaian and Englerian concept of primitive angiosperm. (5)
- (b) Explain how the presence of alkaloids in the plants can be used as taxonomic evidence? (5)
- (c) Discuss the criteria of Valid Publication. (5)