

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5814

J

Unique Paper Code : 2162011203

Name of the Paper : Plant Systematics

Name of the Course : B.Sc. (H) Botany

Semester : II

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.
3. Question No. 1 is compulsory.
4. **All** questions carry equal marks.
5. Attempt all parts of a question together.

1. (a) Fill in the blanks : **(any five)** (1×5=5)

- (i) Indian Botanical Garden is situated at _____ city.
- (ii) Father of Botany _____ .
- (iii) *Pinax theatri botanici* is written by _____ taxonomists.
- (iv) *Theorie elementaire de la Botanique*, author of the book _____ .
- (v) Standard size of a herbarium sheet is _____ .
- (vi) Carlous Linnaeus was given the award of _____ .

- (b) Name the following : (1×5=5)

- (i) Name the Authur of *Systema naturae*.
- (ii) Name a plant name with Genus epithet, named after a place
- (iii) Name Basal Angiosperm
- (iv) An angiosperm which lacks vessels
- (v) Publishing year of Binomial nomenclature

- (c) Define the following : **(any five)** (1×5=5)

- (i) Vasculum
- (ii) Out group
- (iii) Manual
- (iv) Monophyly

P.T.O.

- (v) Heterobathmy
- (vi) Taxonomic literature

2. Differentiate between : **(any three)** (5×3=15)
- (a) Homonym, Basionym and Tautonym
 - (b) Natural and Phylogenetic system of Classification
 - (c) Holotype, lectotype and Paratype
 - (d) Phenetic and Cladistic
3. Write short notes on **(any three)** : (5×3=15)
- (a) Herbaceous origin of angiosperms
 - (b) Secondary metabolites in relation to Taxonomy
 - (c) Importance of Herbarium
 - (d) Biological species concept
 - (e) Floras
4. (a) Write a note on Characters and character coding in cladistics methodology. (7)
- (b) Discuss the role of Palynology in relation to Taxonomy with suitable example. (8)
5. (a) What is type method? Give an account of different 'types' mentioned in plant nomenclature. (5)
- (b) What is APG Classification and discuss about the various versions of APG system of classification. (5)
- (c) Interpret the following : (3)
- (i) *X Triticosecale*
 - (ii) *Triticum aestivum* L. 1753
 - (iii) *Rosa floribunda* cv. Blessings
- (d) Write alternate name and type genus of Labiatae and compositae. (2)