

3005

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[This question paper contains 4 printed pages.]

5. (a) Expand the following : (1×5=5)

- (i) A. DC
- (ii) IAPT
- (iii) Wall
- (iv) ICN
- (v) EU

(b) Give the alternative name and type genus of the following families : (1×3=3)

- (i) Graminae
- (ii) Cruciferae
- (iii) Palmae

(c) Interpret the following citations : (1+3+3=7)

- (i) *Capparis lasiantha* R.Br. ex DC.
- (ii) **Malus domestica** Borkh
Pyrus malus Linn., 1753
Malus malus (Linn.) Britt., 1888
- (iii) *Vallisneria natans* (Lour.) Hara, 1974
Physkium natans Lour., 1790
physkium Juss., 1826

(500)

Your Roll No.....

Sr. No. of Question Paper : 3005

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Unique Paper Code : 2163580010

Name of the Paper : Plant Systematics

Name of the Course : B.Sc. Applied Life Sciences

Semester : VI, NEP: UGCF-2022

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 including Question Number **1** which is compulsory.
3. **All** parts of a question must be answered together.
4. **All** questions carry equal marks.

1. (a) Define the following :

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- (i) Phenogram
- (ii) Holotype
- (iii) Apomorphic character
- (iv) Flora
- (v) Tautonym

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(b) Answer the following (any **FIVE**) : 5

- (i) Give a name of genus based on a place.
- (ii) Give the alternate name of Family *labiatae*.
- (iii) Name one International Botanical Garden.
- (iv) Give the Starting Date of Binomial Nomenclature.
- (v) Give one word for the following statement :
“When the same name, based on the same type, has been published independently at different times by different authors.”
- (vi) Arrange the following taxonomic categories in correct sequence according to hierarchy: Genus, Family, Class, Division, Species, Order.

(c) Match the following : (1×5=5)

- | | |
|---------------------------------|------------------|
| (i) <i>Species Plantarum</i> | (a) J. D. Hooker |
| (ii) Father of Botany | (b) Linnaeus |
| (iii) Numerical taxonomy | (c) Theophrastus |
| (iv) Flora of British India | (d) Adanson |
| (v) Phylogenetic classification | (e) Takhtajan |

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

- (a) Roles of a Herbarium
- (b) Principle of Priority and its limitations
- (c) Principles of ICN
- (d) Biological species concept
- (e) Role of palynology in plant taxonomy

3. (a) Give an outline of Bentham and Hooker's system of classification. (5)
(b) Enlist four main differences between Bentham and Hooker's and Engler and Prantl's system of classification. (4)
(c) Explain the role of cytology in plant classification. Support your answer with suitable examples. (6)

4. Differentiate between **any three** of the following :
(5×3=15)
(a) Artificial system and Natural system of classification
(b) Effective and Valid publication
(c) Herbarium label and Annotation label
(d) Basionym and Synonym

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