

Roll No.

E-528

**M. Sc. (Second Semester) (ATKT)
EXAMINATION, May-June, 2021**

BOTANY

Paper First

(Taxonomy and Diversity of Plant)*Time : Three Hours]**[Maximum Marks : 80***Note :** Attempt all Sections as directed.**Section—A**

1 each

(Objective/Multiple Choice Questions)**Note :** Attempt all questions.

Choose the correct answer :

1. Binomial nomenclature was first proposed by :

- (a) Linnaeus
- (b) Bauhin
- (c) Theophrastus
- (d) Hooker

2. The author of Philosophica Botany (Philosophy of Botany) is :

- (a) Takhtajan
- (b) Cronquist
- (c) Linnaeus
- (d) Bentham

3. The diagrammatic representation of Karyotype is called :

- (a) Dendrograms
- (b) Ideograms
- (c) Histograms
- (d) Piediagrams

4. Cystolith is made up of :

- (a) Calcium oxalate
- (b) Calcium carbonate
- (c) Sodium carbonate
- (d) None of the above

5. The term Herbaria was given by :

- (a) Linnaeus
- (b) Gaspard Bauhin
- (c) George Bentham
- (d) Theophrastus

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6. In which classification gymnosperm is placed between Dicotyledons and monocotyledons ?
- (a) Dahl-Green classification
 - (b) Beney's system of classification
 - (c) Linnaeus system
 - (d) Bentham and Hooker's system
7. The term texonomy was first proposed by :
- (a) Theophrastus
 - (b) Aristotle
 - (c) De-Cendolle
 - (d) None of the above
8. Example of phylogenetic classification is :
- (a) Hutchinson's system
 - (b) Bentham and Hooker's system
 - (c) Engler and Prandtl's system
 - (d) Both (a) and (c)
9. *Engimocarpora* is the fossil of :
- (a) Root
 - (b) Stem
 - (c) Leaf
 - (d) Fruit

10. The system based on morphological characters is known as :
- (a) Artificial system
 - (b) Natural system
 - (c) Phylogenetic system
 - (d) None of the above
11. Hypanthodium inflorescence found in family :
- (a) Nyctiginaceae
 - (b) Apocynaceae
 - (c) Moraceae
 - (d) Solanaceae
12. In family Asteraceae (compositeae) the special type of stamens are found is :
- (a) Diadelphus
 - (b) Synginecious
 - (c) Synendrous
 - (d) Polyadelphus
13. Occurrence of unisexual flowers is the characteristic feature of :
- (a) Cruciferae (Brassicaceae)
 - (b) Rutaceae
 - (c) Euphorbiaceae
 - (d) Apocynaceae

14. Botanical name of *Kullu* is :
- Gardinia gummifae*
 - Storculia uresnx*
 - Storculia foetide*
 - None of the above
15. Leminar stamens and apocarpus ovaries is found in family :
- Magnoliaceae
 - Crucifarae
 - Ranunculaceae
 - Both (a) and (c)
16. Pollinia is found in family :
- Liliaceae
 - Orchidaceae
 - Poaceae
 - Cyperaceae
17. *Asparagus* belongs to family :
- Liliaceae
 - Labiataeae
 - Zingiberaceae
 - Gramineae (Poaceae)
18. Aromatic rhizomes one found in family :
- Orchidaceae
 - Zingiberaceae
 - Cyperacceae
 - Gramineae (Poaceae)

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19. Feathery stomens is the characteristic feature of :
- Palmae (Araaceae)
 - Liliaceae
 - Zingberaceae
 - Poaceae (Gramineae)
20. Botanical name of phool bahari is :
- Cynadon dactylon*
 - Thysmolina morima*
 - Sacerum munja*
 - Cocos nuafae*

Section—B

2 each

(Very Short Answer Type Questions)**Note :** Attempt any *eight* questions.

- Define Binomial Nomenclature.
- Name of *two* botanical gardens.
- Define phylogenetic classification.
- Write one merit and one demerit of Englar and Prandtl system of classification.
- Botanical name and vernacular name of any *two* plants of Nymphaeaceae.
- Botanical name and family of Dara and Mahogeny.
- Botanical name and Vernacular name of *two* plants of Cyperaceae.

8. Botanical name and family of Tikhur and Leman grass.
9. Syndrous stamens.

Section—C

3 each

(Short Answer Type Questions)**Note :** Attempt any *eight* questions.

1. Major taxonomic evidences of phytochemistry.
2. Typification or type method.
3. Merits of Bentham and Hooker's classification.
4. *Four* principles of Cronquit's classification.
5. Androecium in family Maliaceae.
6. Gynoecium and corolla of Labiateae.
7. Floral diagram and floral female of *Lantana Camara-Kuri*.
8. Botanical name and vernacular name of family *two* of Commelinaceae and *two* names of Orchidaceae.
9. Androecium and Gynoecium of Liliaceae.

Section—D

5 each

(Long Answer Type Questions)**Note :** Attempt all questions in **200** words.

1. Describe the following of international code of botanical nomenclature :
 - (i) Principles of Nomenclature
 - (ii) Principles of Priority
 - (iii) Citation of Authority or Author's citation

Or

Taxonomic evidences in plant embryology.

2. Merits and demerits of Hutchinson's system of classification.

Or

Outline of Bentham and Hooker's classification.

3. Inflorescence in Astraceae or Compositae.

Or

Important reproductive character of family Umbelliferae with its systematic position.

4. Economic importance with botanical name and vernacular name of family Poaceae at least seven plants.

Or

Characteristic features of family Zingiberaceae.