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M.Sc.(Second Semester) EXAMINATION, May-June, 2022 BOTANY

Paper First

(Taxonomy and Diversity of Plant)

Time : Three Hours] [Maximum Marks: 80

Note: Attempt all sections as directed.

Section - A

(Objective/Multiple Choice of Questions)

Note: Attempt all questions.

Choose the correct answer:

- 1. The term Taxonomy was first proposed by:-
 - (A) Theophrastus
 - (B) De Candole
 - (C) Linnaeus
 - (D) Aristotle

2. Phylogenetic classification is one which is based on-

- (A) Overall similarities
- (B) Utilitarian system
- (C) Habits of plants
- (D) Common evolutionary descents
- 3. Classification given by Bentham & Hooker is:-
 - (A) Artificial
 - (B) Natural
 - (C) Phylogenetic
 - (D) Numerical
- 4. System of classification used by Linnaeus was-
 - (A) Natural system
 - (B) Artificial system
 - (C) Phylogenetic system
 - (D) Asexual
- 5. Basic unit or smallest taxon of taxonomy classification is:-
 - (A) Species
 - (B) Kingdom
 - (C) Family
 - (D) Variety

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- (A) A group of related families
- (B) A group of related species
- (C) A type of living organism
- (D) A taxonomic group of any ranking
- 7. Sorghun is considered as camel crop because of:-
 - (A) Deep root system
 - (B) Resistant to drought
 - (C) Shallow root system
 - (D) Nutrient exhaustiveness
- 8. Anjeer fruits are used to cure:-
 - (A) Pain
 - (B) Fever
 - (C) Piles
 - (D) None
- 9. Occurence of unisexual flowers is the characteristic feature of :-
 - (A) Brassicaceae
 - (B) Euphorbiaceae
 - (C) Chenopodiaceae
 - (D) Apocynaceae

- 10. Which one of the following is known as grass family:-
 - (A) Graminae
 - (B) Cyperaceae
 - (C) Palmae
 - (D) Liliaceae
- 11. Numerical taxonomy is also known as :-
 - (A) Chaemotaxonomy
 - (B) Serotaxonomy
 - (C) Teximetrics
 - (D) Cytotaxonomy
- 12. Cyto taxonomy support the inclusion of yucca in family :-
 - (A) Liliaceae
 - (B) Arraryllidaceae
 - (C) Agavaceae
 - (D) Iridaceae
- 13. India's largest herbarium is placed at :-
 - (A) Herbarium of F.R.I. Dehradun
 - (B) National Botanical Herbarium, shibpur
 - (C) Blattner Herbarium, Bombay
 - (D) National Botanical Garden's Herbarium, Lucknow

14. The Corolla of Salvia is:-	
(A) 2/3 bilipped	
(B) 1/4 bilipped	
(C) 3/2 bilipped	
(D) 4/1 bilipped	
15. The Occurence of gynobasic style is- specific cha ter of :-	rac-
(A) Lamiaceae	
(B) Acanthaceae	
(C) Sobnaceae	
(D) Verbenaceae	
16. Inflorescence found in family compositae is :-	
(A) Raceme	
(B) Spike	
(C) Umbel	
(D) Head	
17. The Botanical name of Amla is:-	
(A) Phyllanthus niruri	
(B) Ricinus Communis	
(C) Emblica officinalis	
(D) Chenopodium album	
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18. Pollinia is found in family :-
(A) Liliaceae
(B) Poaceae
(C) Orchidaceae
(D) Palmae
19. Inflorescence in family ranunculaceae is-
(A) Racemose
(B) Head
(C) Compound Head
(D) Cymose
20. Jeweler's weights are obtain form:-
(A) Sesbania grondiflora
(B) Abrus precatorius
(C) Psoralea corylifolia
(D) Cyamopsis tetragonaloba
Section - B
(Very Short Answer Type Questions)
(2 marks each)
Note: -Attempt any eight questions:

1. Give name of father Taxonomy.

- 2. One merit and one demerit of Bentham & Hooker system of classification.
- 3. Botanical name & vernacular name of any two plants of fabaceae.
- 4. Write Botanical name & family of Tulsi.
- 5. Write Botanical name & family of Teak or sagon
- 6. Name of inflorescence found in family of Euphorbiaceae.
- 7. Syngenesious stamen
- 8. Botanical name and vernacular name of two plants of zingiberaceae.
- 9. Name of two botanical gardens.

Section - C

(Short Answer Type Questions)

(3 marks each)

Note: Attempt any Eight Questions.

- 1. Major taxonomic evidences of Embryology.
- 2. Give four principles of Takhtajam classification.
- 3. Three merits of cronquist classification.
- 4. Androceium of family cucurbitaceae.
- 5. Floral diagram & floral formula of coriandrum & ativum.
- 6. Two name & Place of Botanical garden of India.
- 7. Botanical name family & 2 economic importance of Neem.

- 8. Compare cyperaceae & Poaceae by stem leaves and flower.
- 9. Principle of Priority.

Section - D

(Long Answer Type Questions)

(5 marks each)

Note:- Attempt all question in 200 words.

1. Give Taxonomic evidence in Phytochemistry.

OR

Give outline & Principles of Hutchinson's system of classification.

2. Write the rules of Binomial Nomenclature

OR

Technique for preparation of Herbarium.

3. Systematic Position & characteristic feature of family Labiatae.

OR

Write Economic importance with botanical name and vernacular name of family Asteraceae at five plants.

4. Systematic position & floral characters of zingiberaceae or orchidaceae.

OR

Systematic position & floral characters of Poaceae.