

(PART-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

- | | |
|--|----------|
| 1. Discuss Taxonomic hierarchy in details. | 10 |
| 2. Discuss the different sources of taxonomic characters including morphology, micro-morphology, anatomy and palynology. | 10 |
| 3. Write in detail about the principle of International Code of Nomenclature. Make a note on Typification. | 5+5=10 |
| 4. Give an account on taxonomic literature. | 10 |
| 5. What is <i>nomen nudum</i> ? Write about the Homonym, Synonym, Tautonym and Alternative name. | 2×5=10 |
| 6. Write a brief note on BSI. Discuss the aim and objectives of BSI. | 5+5=10 |
| 7. Write short notes:
a. Numerical taxonomy.
b. Chemotaxonomy. | 5+5=10 |
| 8. Discuss the rule of computer in plant taxonomy. Mention three major Botanical Garden of the world. | 3+3+4=10 |

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**M.Sc. BOTANY
FOURTH SEMESTER
ANGIOSPERM TAXONOMY
MSB-402 C**

(Use separate answer scripts for Objective & Descriptive)

Duration : 3 hrs.

Full Marks : 70

(PART-A : Objective)

Time : 20 min.

Marks : 20

Choose the correct answer from the following:

1×20=20

- For a scientific name to be complete, accurate and readily verifiable, it should be accompanied by:

a. Include the year of publication	b. Full author name
c. Author citation	d. None
- In case of a Basionym, the name of the original author or authors whose epithet is being used in the changed name is placed within:

a. Bracket	b. Use of emend
c. Square Bracket	d. None
- Lectotype is:

a. The specimen or single element of a collection designated or indicated by the author as the type specimen of a taxon in the protologue.
b. A specimen selected by a subsequent author from amongst syntypes to serve as the definitive type for a name.
c. Any of two or more specimens designated as types.
d. None.
- According to the ICBN Art. 36.2 "two or more different names based on the same type proposed simultaneously for the same taxon by the same author". Is called as,

a. Homonym	b. Synonym
c. Alternative name	d. Autonym
- When two or more authors publish a new species or propose a new name, their names are linked by:

a. <i>et. al.</i>	b. And
c. <i>et.</i>	d. None
- For the valid publication of scientific name of plant the Holotype must be designed on or after:

a. 1 January 1948	b. 1 January 1958
c. 1 January 1990	d. None
- " _____ " is "as complete an account as can be made at a given time of any one family, tribe, or genus, 'nothing being neglected which is necessary for a perfect knowledge of it.'"

a. Monographs	b. Revisions
c. Flora	d. None

8. Advancement Levels in Taxonomy: "Exploratory Phase" include:
- The phase include herbarium records are ample and enough information is available concerning variation from field studies. It also aids in better understanding of the degree of variation within a species.
 - The phase marks the beginning of plant taxonomy, collecting specimens and building herbarium records and other information.
 - The phase, the herbarium records and variation studies are complete. In addition, information on biosystematics is also available.
 - None.

9. Which one is the primitive family?

- | | |
|------------------|---------------|
| a. Ranunculaceae | b. Asteraceae |
| c. Orchidaceae | d. None |

10. Advancement Levels in Taxonomy: "Consolidation or Systematic Phase" include:

- The phase include herbarium records are ample and enough information is available concerning variation from field studies. It also aids in better understanding of the degree of variation within a species.
- The phase marks the beginning of plant taxonomy, collecting specimens and building herbarium records and other information.
- The phase, the herbarium records and variation studies are complete. In addition, information on biosystematics is also available.
- None.

11. Loureiro described a species under the name *Physkium natans* in 1790. It was subsequently transferred to the genus *Vallisneria* by A. L. de Jussieu in 1826, but unfortunately, he ignored the epithet *natans* and instead used a binomial *Vallisneria physkium*, a superfluous name. Two Asiatic species with independent typification were described subsequently under the names *V. gigantea* Graebner, 1912 and *V. asiatica* Miki, 1931. Hara on making a detailed study of Asiatic specimens concluded that all these name are synonymous, and also that *V. spiralis* Linn. with which most of the Asiatic specimens were identified does not grow in Asia. As no legitimate combination based on *Physkium natans* Lour. existed, he made one — *V. natans* (Lour.) Hara — in 1974. According to the rule of priority which scientific name of the following is the correct name?

- | | |
|---------------------------|--------------------------------|
| a. <i>V. gigantea</i> | b. <i>Vallisneria physkium</i> |
| c. <i>Physkium natans</i> | d. <i>V. natans</i> |

12. "KCA" means:

- | | |
|-----------------|-----------------|
| a. Hypanthodium | b. Sysgenesious |
| c. Hypanthium | d. Cyathium |

13. "When a new combination also involves the change of status. Epithet of the basionym will accordingly be used in the combination intended" according to the rule of valid publication which of the following is correct abbreviation after the name of the author?

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|------------------------|-------------|
| a. comb. et stat. nov. | b. sp. Nov. |
| c. comb. Nov. | d. None |

14. "Any duplicate of the holotype (i.e., part of the same collection)" is called as:

- | | |
|------------|--------------|
| a. Isotype | b. Lectotype |
| c. Syntype | d. Topotype |

15. The end suffix of Subclass is:

- | | |
|---------|-----------|
| a. eae | b. idae |
| c. inae | d. oideae |

16. "A specimen selected by a subsequent author from amongst syntypes to serve as the definitive type for a name":

- | | |
|------------|--------------|
| a. Isotype | b. Lectotype |
| c. Syntype | d. Topotype |

17. The end suffix of Subtribe is:

- | | |
|---------|-----------|
| a. eae | b. idae |
| c. inae | d. oideae |

18. A scientific name with no diagnostic features. The name will be placed in:

- | | |
|----------------------|----------------|
| a. Synonym | b. Tautonym |
| c. Alternative names | d. nomen nudum |

19. In a scientific name if the species epithets is automatically established from its genus epithets. The scientific name is called as:

- | | |
|----------------------|----------------|
| a. Synonym | b. Tautonym |
| c. Alternative names | d. nomen nudum |

20. "C" means:

- | | |
|------------------------|---------------------|
| a. flower hypogenous | b. flower epigynous |
| c. ovary half-inferior | d. ovary inferior |