



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – May 2025

II Semester

Class : I P.G.
Major : Botany

Time: 3 Hours
Max. Marks: 100

23MBOC10 Taxonomy of Angiosperms and Economic Botany

Course Outcomes:

- CO1 : Illustrate the different systems of classification and phylogenetic relationships within the plant kingdom
CO2 : Understand key methods and to handle, analyse the plant materials in the laboratory and field.
CO3 : Understand about different taxonomic characteristics of plant families, genera, and species
CO4 : Acquire a basic knowledge of taxonomic diversity of important families and useful plants
CO5 : Evaluate the medicinal and economic importance of plants in modern society

Part A Choose the Correct Answer

10 x 1 = 10

1. The term 'Plant Taxonomy' is coined by CO1K1
a. Theophrastus b. Aristotle c. AP DeCandolle d. A Cronquist
2. The three-volume book 'Genera Plantarum' is written by CO1K1
a. G Bentham and J D Hooker b. Charles Darwin
c. A Engler and K Prantl d. Benson and A Takhtajan
3. A specimen or illustration selected to serve as nomenclature type, as long as all of the material on which the name of the taxon was based is missing is called CO2K1
a. syntype b. neotype c. topotype d. cyanotype
4. Molecular taxonomy details exclusively with the utilisation of ----- data. CO2K1
a. Carbohydrate b. Protein c. Nucleic acid d. lipids
5. The family Rhamnaceae is commonly called as ----- family. CO3K1
a. arum family b. buckthorn family c. periwinkle family d. bed straw family
6. The presence of schizogenous ducts is a unique feature of the family CO3K1
a. Magnoliaceae b. Apiaceae c. Asteraceae d. Lamiaceae
7. Pseudo stems formed by leaf sheath is a characteristic feature of the family CO4K1
a. Euphorbiaceae b. Commelineaceae c. Musaceae d. Cyperaceae
8. The fruit of Gramineae is CO4K1
a. berry b. capsule c. caryopsis d. nut
9. The most valuable medicinal property of *Catharanthus roseus* is CO5K1
a. anti cancer activity b. hypolipidemic activity c. antidiabetic activity d. antipyretic activity
10. *Vigna radiata* is a CO5K1
a. food crop b. pulse c. fibre yielding plant d. beverage plant

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Comment on taxonomic hierarchy. CO1K5
(or)
- 11.b. Appraise APG III plant classification. CO1K5
- 12.a. Illustrate the role of flora and monograph in plant taxonomy. CO2K3
(or)
- 12.b. Examine the role of priority in nomenclature. CO2K2
- 13.a. Evaluate the floral characteristics of Lamiaceae. CO3K5
(or)
- 13.b. Estimate the economic importance of Asteraceae. CO3K2
- 14.a. Give brief notes on the family Amaranthaceae. CO4K1
(or)
- 14.b. Compare the floral characters of Cannaceae and Musaceae. CO4K2
- 15.a. Infer the botanical details and biological significances of coffee and chocolate. CO5K2
(or)
- 15.b. Illustrate the various steps starting from the cultivation till extraction of oil from sunflower. CO5K3

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Illustrate Cronquist's system of classification of flowering plants. CO1K3
(or)
- 16.b. Compare Bentham and Hooker system of classification of plants with that of Engler and Prantl's system of classification. CO1K2
- 17.a. Analyze the modern trends in angiosperm taxonomy. CO2K4
(or)
- 17.b. Summarise the herbarium techniques and its preservation. CO2K2
- 18.a. Discuss the salient features, economic importance and phylogeny of Magnoliaceae. CO3K2
(or)
- 18.b. Compare the vegetative characters and floral features with the help of a floral diagram each of the family Apocynaceae and Asclepiadaceae. CO3K2
- 19.a. Illustrate the morphological and floral characters and economic importance of Graminae. CO4K3
(or)
- 19.b. Justify the inclusion of family Euphorbiaceae in monochlamydeae. CO4K4
- 20.a. Organize the botanical details, cultivation practices and harvesting of the useful part(s) of any two medicinal plants. CO5K4
(or)
- 20.b. Examine the cultivation practices, harvesting and storage of any three food crops. CO5K3
