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R – 7487



Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, November 2023

Botany

**BO 221 : TAXONOMY OF ANGIOSPERMS, ECONOMIC BOTANY AND
ETHNOBOTANY**

(2019 Admission onwards)

Time : 3 Hours

Max. Marks : 75

Instruction : Draw diagrams and illustrate with examples wherever necessary.

- I. Answer the following questions.
 1. What is gynobasic style?
 2. What is peduncle?
 3. What are paratype specimens?
 4. What is autonym?
 5. Write the binomials of any four economically important plants in the family Poaceae.
 6. Comment on the typical inflorescence type found in Apiaceae.
 7. Explain the uses and the useful part of Andrographis.
 8. What are the medical benefits of cannabis?
 9. Give the botanical name of Aarogyappacha.
 10. Define ethnobotany.

(10 × 1 = 10 Marks)

P.T.O.

II. Answer the following questions in not more than 50 words.

11. (a) What is molecular taxonomy?

OR

(b) Distinguish between marginal placentation and parietal placentation.

12. (a) Describe the structure of a typical Rubiaceae flower in technical terms.

OR

(b) Explain the contributions of Joseph Dalton Hooker to plant science.

13. (a) Describe the basic principle of chemotaxonomy.

OR

(b) Explain the reasons to consider Magnoliaceae as a relatively primitive family.

14. (a) Give the systematic position of Solanaceae based on Bentham and Hooker's system of classification.

OR

(b) What is rosewood? What makes it highly valued?

15. (a) Explain the research contributions of E K Janaki Ammal.

OR

(b) Give the names of any four medicinal plants used in Ayurveda.

(5 × 2 = 10 Marks)

III. Answer the following questions in not more than 150 words.

16. (a) Distinguish epigynous and perigynous flower, drawing suitable diagrams.

OR

(b) Write a critical account on the relevance of IPR in ethnobotany.

17. (a) Compare and contrast natural system and phylogenetic system of classification.

OR

(b) Explain the services provided by BSI.



18. (a) Describe, in technical terms, the important vegetative as well as floral characteristics of Euphorbiaceae.

OR

(b) Explain the structure of androecium and the pollination mechanism in Calotropis.

19. (a) Describe the significance of plant systematics.

OR

(b) What are the advantages of numerical taxonomy? Briefly describe the methodology involved.

20. (a) Describe the different types of perianth aestivation, drawing suitable diagrams.

OR

(b) Describe the steps involved in the preparation of herbarium. Add a note on the importance of herbarium in taxonomic studies.

21. (a) Critically evaluate the significance of ethnobotanical knowledge in modern science.

OR

- (b) Give a list of plants used by the primitive tribal groups of Kerala.
22. (a) Write the binomials and family of five fruit plants you have studied.

OR

- (b) Describe the floral characters of Cucurbitaceae.

(7 × 5 = 35 Marks)

IV. Answer the following in not more than 250 words.

23. (a) Explain the methodology, data collection and documentation process in ethnobotany.

OR

- (b) Describe the occurrence, botanical details including the morphology of useful part and the uses of the spices and condiments you have studied.

24. (a) Explain the evolutionary principles Arnen Takhtajan considered for the classification of angiosperms. Give a brief outline of the classification proposed by Takhtajan.

OR

- (b) What are taxonomic keys? Describe the types and the process of construction of taxonomic keys and their utilization.

(2 × 10 = 20 Marks)

