

(Pages : 4)

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Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, September 2024

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 taxon?
2. What is hypanthodium?
3. What is author citation? Give one example.
4. What is the distinguishing feature of the plants belonging to Monochlamydeae?
5. What is a type specimen?
6. Give the systematic position of Malvaceae according to Bentham and Hooker's system of classification.
7. Explain the medicinal importance of *Adhatoda vasica*.
8. Comment on the health benefits of Taro.
9. Give the names of any four tribal groups in Kerala.
10. Describe the androecium in verbenaceae in technical terms.

(10 × 1 = 10 Marks)

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

11. (a) Comment on the present status of Scitaminae.

OR

(b) Differentiate between aggregate fruits and multiple fruits.

12. (a) Explain the drawbacks of artificial system of classification.

OR

(b) What are the primitive characters found in Magnoliaceae?

13. (a) Give four examples of medicinal drugs derived from plants.

OR

(b) Explain the major contributions of James Sykes Gamble.

14. (a) What is IPR? Comment on its significance.

OR

(b) What makes Teak wood one of the best woods for making furniture?

15. (a) Comment on the advantages of *Trichopus zeylanicus* model of benefit sharing.

OR

(b) In what all ways does ethnobotany contributes to drug discovery?

(5 × 2 = 10 Marks)

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

16. (a) What is placentation? Describe the different types of placentation found in flowering plants.

OR

(b) What is herbarium? What are the steps involved in the preparation of herbarium and the significance of herbarium?



17. (a) Explain the aims and objectives of cultivated plant code.

OR

(b) What is numerical taxonomy? Describe the steps involved in its procedure and the advantages of numerical taxonomy.

18. (a) Explain the different cytogenetic techniques and methods used in cytotaxonomy.

OR

(b) What are the adaptive features found among the genera in Rhizophoraceae that grow in mangroves?

19. (a) Describe the distinguishing vegetative and floral characters of Asteraceae in technical terms.

OR

(b) Describe the importance of botanical gardens in taxonomy studies. Give the names of major Botanical gardens in India.

20. (a) Give the binomials of five vegetables you have studied.

OR

(b) Explain the notable contributions of S K Jain and E K Janaki Ammal to ethnobotany.

21. (a) Comment on the scope and importance of ethnobotany.

OR

(b) Describe the flower types based on the position of the ovary in it. Draw suitable diagrams.

22. (a) What are taxonomic keys? Differentiate between indented key and bracketed key.

OR

(b) Write an account on the modern trends in plant taxonomy. Add a note on APG system of plant classification.

(7 × 5 = 35 Marks)



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

23. (a) What is ethnobotany? Explain the scope and importance of ethnobotany, giving appropriate examples.

OR

- (b) Write brief notes on the occurrence, botanical details including the morphology of useful part and the uses of the plantation crops you have studied.

24. (a) Which are the subfamilies coming under Leguminosae as in Bentham and Hooker's classification? Mention the distinguishing characters of each.

OR

- (b) With reference to Bentham and Hooker's system of classification, give a detailed account on the natural system of classification and compare it with the artificial system. Add a note on the merits and demerits of Bentham and Hooker's system of classification.

(2 × 10 = 20 Marks)

