

Reg. No. :

Name :

Second Semester M.Sc. Degree Examination, July 2019

Branch : Botany

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

(2013 Admission onwards)

Time : 3 Hours

Max. Marks : 75

I. Write note on the following:

1. Taxonomic Indices
2. Tropical Botanical Garden
3. Epitype
4. Pollinium of Asclepiadaceae
5. Classification scheme by Linnaeus
6. Botanical Survey of India
7. Parapatric speciation
8. Ethnobotanical significance of *Trichopus zeylanicus*
9. *Hortus Malabaricus*
10. Write the centre of origin and binomial of (a) Tapioca (b.) Cashew nut, (c) Guava, (d) Potato

(10 × 1 = 10 Marks)

P.T.O.



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

11. (a) What are the major concepts of Numerical taxonomy?

OR

(b) What is Chemotaxonomy. Explain two examples on the significance of it?

12. (a) What are the major concepts of APG classification?

OR

(b) Write a note on taxonomic keys.

13. (a) Write a note on the salient features of Bessy's classification scheme.

OR

(b) Comment on the basal angiosperms.

14. (a) Write a note on the significance of Herbarium.

OR

(b) What is Diagnosis? Is it essential to provide diagnosis in Latin while publishing a new taxa? Comment.

15. (a) Write a note on Punctuated evolution.

OR

(b) Comment on concepts of origin of life.

(5 × 2 = 10 Marks)



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

16. (a) Provide a comparative account on the floral features of Cyperaceae and Poaceae.

OR

- (b) Discuss the systematic position of Euphorbiaceae in the light of APG classification system.

17. (a) Write a short note on the salient floral features of Scitaminae.

OR

- (b) Comment on the salient features of Verbenaceae.

18. (a) Write an account on the type concept. Explain various nomenclatural types.

OR

- (b) Discuss the concept of Biological and Taxonomic species.

19. (a) Discuss the rule of priority and its limitations.

OR

- (b) Explain the concepts of effective and valid publication as per the Code.

20. (a) Explain the concepts of homonym, autonym, basionym, tautonym, nomen nudum.

OR

- (b) Write the Principles of the Code.

21. (a) Write the binomial, family, part used, major products and uses of the following: (i) Glycyrrhiza, (ii) Cinchona, (iii) Opium, (iv) Nutmeg, (v) Sugar beet

OR



- (b) Write the binomial, family, part used, major products and uses of the following: (i) Sarpagandha, (ii) Belladonna, (iii) Turmeric, (iv) Sweet potato, (v) Soya bean

22. (a) Write a brief note on the major ethnical groups of Kerala.

OR

- (b) Comment on the binomial, family and ethnobotanical aspects of five plants used by ethnic groups of Kerala. **(7 × 5 = 35 Marks)**

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

23. (a) Write an account on the diversity of form and structure of Orchidaceae. Discuss its systematic position with respect to Bentham and Hooker and Phylogentic classification systems.

OR

- (b) Discuss the concept of primitiveness in Angiosperms as reflected in classification schemes of Bentham and Hooker, Bessy and Taktajan.
24. (a) Discuss the concepts of forces and mechanism of evolution in the light of advances in molecular biology.

OR

- (b) Write an overview of Isolation mechanisms. Discuss their significance in speciation. **(2 × 10 = 20 Marks)**
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