

Roll No.

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756302

Jan. 2022

M.Sc. (Botany) - IIIrd SEMESTER

Plant Systematics (MBOT-302)

Time : 90 Minutes]

[Max. Marks : 25

Instructions :

1. *It is compulsory to answer all the questions (1 mark each) of Part-A in short.*
2. *Answer any three questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) Which APG system gave the concept of 'bracketed families'? (1)
- (b) What are Taxonomic Keys? (1)
- (c) Define Tautonym. (1)
- (d) What will be the autonym of *Ficus religiosa* var. *indica*? (1)
- (e) The latest code of Botanical Nomenclature is called code. (1)
- (f) The full form of OTU is (1)
- (g) DNA barcode region used for animals is (1)

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[P.T.O.]

- (h) The principles of Numerical taxonomy were developed by (1)
- (i) What does the 'X' in the name *Quercus X beadle* denote? (1)
- (j) What is an Isotype? (1)

PART - B

2. (a) Define the terms Autonyms, Homonyms with examples. (3)
- (b) Explain the 'rule of priority' in botanical nomenclature. (2)
3. (a) What are Apomorphic and Sympleiomorphic characters? (2)
- (b) Define the terms Monophyly, Paraphyly and Polyphyly. (3)
4. Write the economic importance of ANY TWO of the given families : Asteraceae, Apocynaceae, Euphorbiaceae, Orchidaceae, Polygonaceae. (5)
5. What is the role of Botanic Gardens in the conservation of biodiversity? (5)
6. What are the basic steps in Phylogenetic Analysis? How can an unrooted tree be converted into a rooted one? (5)