

PG CBCS
M.SC. Semester-IV Examination, 2021
BOTANY
PAPER: BOT 495A
PRACTICAL
(ANGIOPERM TAXONOMY & MOLECULAR SYSTEMATICS)

Full Marks: 50

Time: 3 Hours

Answer any TWO questions from the following:

25x2=50

- I. Write down the chemical composition of two common preservatives used in herbarium preparation. Schematically describe the preparation of a typical herbarium sheet. Mention the standard size of herbarium sheets and label used within. Mention the points which are contained in the label of herbarium.

4+4+12+2+3
- II. Name two chromatographic techniques used in chemotaxonomy. Write down the principles of polyacrylamide gel electrophoresis. How to prepare the polyacrylamide gel electrophoresis for protein? Mention requisites required for the Agarose gel electrophoresis.

2+3+15+5
- III. Draw, label and describe the anomocytic, anisocytic and diacytic stomata. Write down the identifying characters with examples of following fruit types: Drupe, Berry, Nut and Samara.

15+10
- IV. Write down the uses of Index Kewensis, Dictionaries, Manuals, Bibliographies and Flora in taxonomy practical classes. Write down the methodology of to work out the inter /and intraspecific morphological variations of angiospermic plant taxa.

15+10
- V. Describe the Acetolysis method to workout pollen morphology of angiospermic taxa. Draw and describe the pollen grains of *Hibiscus rosa-sinensis*, *Eucalyptus* sp., *Poa* sp. and *Ocimum sanctum* .

13+12
- VI. Write down the methodology of taxonomic study of unknown plants from local flora. Draw and level one actinomorphic and one zygomorphic flower available locally. Draw, label and describe a typical grass flower with their reproductive structures.

8+8+9
