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NEPNY—41—2023

FACULTY OF SCIENCE

M.Sc. (NEP) (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

BOTANY

Paper SBOTC-403

(Taxonomy of Angiosperms and Gymnosperms)

(Tuesday, 26-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :- (i) Question No. 1 is compulsory.

(ii) Of the remaining attempt any *three* questions.

(iii) Draw neat and labelled diagrams wherever necessary.

1. Write brief notes on the following :

20

(a) Classification of Gymnosperms proposed by Birbal Sahni (1920)

(b) Principles of Taxonomy

(c) Diagnostic characters of family Euphorbiaceae.

(d) Biosystematic categories.

P.T.O.

2. (a) Describe in detail comparative account on Gnetales. 10
- (b) Explain in detail comparative account on Cordaitales. 10
3. (a) Describe in detail various theories of origin of Angiosperms. 10
- (b) Give a detailed account on principles and rules of international code of nomenclature for alga, fungi and plants. 10
4. (a) Give a detailed account on Bentham and Hooker's classification with its merits and demerits. 10
- (b) Explain in detail general account on the family Poaceae with its floral formula and floral diagram. 10
5. (a) Describe in detail taxonomic evidences and techniques used in chemotaxonomy. 10
- (b) Give a detailed account on numerical taxonomy. 10
6. Write brief notes on the following : 20
- (a) Types of fossils
- (b) Biological species concept
- (c) Merits and demerits of Engler and Prantl's classification.
- (d) Random Amplified Polymorphic DNA (RAPD) techniques.