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NEPWT—164—2024

FACULTY OF SCIENCE

M.Sc. (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

BOTANY

Paper SBOTC-1453

(Plant Anatomy and Embryology of Angiosperms)

(Monday, 16-12-2024)

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

Time—Three Hours

Maximum Marks—80

Note :— (i) Question No. 1 is compulsory.

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

(iii) Draw neat and well labelled diagrams wherever necessary.

1. Write brief notes on the following : 20

(a) Cytological and molecular aspects of SAM.

(b) Leaf structure with reference to Kranz anatomy.

(c) Pollen wall

(d) Importance of palynology.

P.T.O.

2. Describe in detail :
- (a) Organization of RAM. 10
 - (b) Primary and secondary growth in dicot stem. 10
3. Describe in detail :
- (a) Types and functions of secretory tissues. 10
 - (b) Floral meristem and floral development in Arabidopsis. 10
4. Describe in detail :
- (a) Development of male gametophyte. 10
 - (b) Types and functions of endosperms. 10
5. Describe in detail :
- (a) Role of Palynology in taxonomy. 10
 - (b) Techniques of pollen analysis. 10
6. Write brief notes on the following : 20
- (a) Scope of histology
 - (b) Phyllotaxy
 - (c) Polyembryony
 - (d) Pollen morphology.