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NEPRT—64—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2024

BOTANY

(SBOTE-401)

(Bioinstrumentation and Methods in Biology)

(Tuesday, 30-04-2024)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—60

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

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

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

1. Write brief notes on any *three* : 15
 - (a) Fixation and staining
 - (b) Gas chromatography
 - (c) Radiation hazards
 - (d) AFLP technique.
2. Write in brief on :
 - (a) Safe use of laboratory equipments. 8
 - (b) Micrometry. 7
3. Describe in brief on :
 - (a) Principle and applications of HPTLC. 8
 - (b) Working and applications of oven. 7

P.T.O.

4. Write in brief on :
- (a) Principle and techniques of colorimeter. 8
 - (b) Uses of radioisotopes in Biotechnology and life sciences. 7
5. Explain in brief on :
- (a) Methods and applications of western blotting techniques in life sciences. 8
 - (b) Cooling centrifuge—principle and applications. 7
6. Write brief notes on any *three* : 15
- (a) Hazards and waste disposal
 - (b) Sterilization by filtration
 - (c) Autoradiography
 - (d) PAGE electrophoresis.