



K16P 0177

Reg. No. :

Name :

**Fourth Semester M.Sc. Degree (Regular/Supplementary/Improvement)
Examination, March 2016**

BOTANY

(2014 Admn.)

BOT 4E04 : Techniques and Instrumentation in Botany

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following :

(2×8=16)

1) Describe the principles and applications of HPLC.

OR

2) Explain design and care of centrifuge rotors.

3) Write on the detection and measurement of radioactivity.

OR

4) Briefly explain the methods of controlling of chemical hazards.

II. Answer **any two** of the following :

(2×6=12)

5) a) Define enzyme.

1

b) Action of Nitrate reductase.

2

c) Role of buffers in enzyme action.

3

6) a) Spectroscopy.

1

b) Principles of spectrofluorometry.

2

c) Applications of ESR.

3

7) a) What is half life ?

1

b) Atomic structure.

2

c) Radioactive decay-types.

3

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III. Answer **any six** of the following :

(6×3=18)

- 8) SI units.
- 9) First aid.
- 10) Spillage and waste disposal.
- 11) Peroxidase.
- 12) Preparative electrophoresis.
- 13) NMR.
- 14) Centrifugal force.
- 15) IEF.

IV. Answer **any seven** of the following :

(7×2=14)

- 16) Units of radioactivity.
- 17) Acids.
- 18) Stress enzyme.
- 19) PAGE.
- 20) Spectral analysis.
- 21) AAS.
- 22) Silica gel.
- 23) Radioisotope uses in biology.
- 24) Circular dichroism.
- 25) Column.