

Total No. of Questions :5]

SEAT No. :

P2251

[4932]-104

[Total No. of Pages :2

M.Sc. - I

BOTANY

**BO -1.4: Botanical Techniques
(2013 Credit System Pattern) (Semester - I)**

Time : 3 Hours]

[Max. Marks :50

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Answer the following (Any Five)

[10]

- a) What is light microscope?
- b) Define gas chromatography.
- c) What is NMR?
- d) Write on rotors.
- e) Give any two principles of TEM.
- f) Define affinity chromatography.

Q2) Write briefly on Any two of the followings.

[10]

- a) TLC.
- b) Working and application of spectrophotometer.
- c) pH meter.
- d) Cytochemical techniques.

P.T.O.

Q3) Explain any two of the following. **[10]**

- a) Micrometry techniques.
- b) Two Dimensional Gel electrophoresis.
- c) Principles of Autoradiography.
- d) Ultra-centrifugation.

Q4) Write short notes on (any two). **[10]**

- a) Fluorescence microscopy.
- b) Immuno precipitation.
- c) Maxam-Gilbert's Method of DNA sequence.
- d) UV-Visible spectroscopy.

Q5) Comment on concept of partition coefficient -Add a note on paper and thin layer chromatography. **[10]**

OR

State Beer and Lambert's Law and explain it by spectroscopy.

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