



KC-243

Seat No. _____

Third Year B. Sc. Examination

March / April - 2013

Biotechnology : Paper-X

(Analytical Techniques in Biotechnology)

Time : 3 Hours]

[Total Marks : 70

1 Answer the following : 14

- (a) Discuss the basic aspect of Quantitative analysis.
- (b) Discuss concept of Good Laboratory Practice.

OR

- (a) Explain the fundamentals of Quality Management.
- (b) Discuss the basic aspect of Qualitative analysis.

2 Explain the following : 14

- (a) Explain MALDI - TOF.
- (b) Discuss Principle, working and applications of U.V - Visible spectroscopy.

OR

- (a) Give overview on electromagnetic spectrum.
- (b) Explain Atomic spectroscopy.

- 3 Discuss the following : 14
- (a) Transmission Electron Microscopy
 - (b) Discuss various types of Centrifuges.

OR

- (a) Explain Filtration
- (b) Write a note on SEM.

- 4 Discuss the following : 14
- (a) Write a note on Paper chromatography.
 - (b) Discuss HPLC.

OR

- (a) Explain Gas chromatography.
- (b) Give an overview on Electrophoresis.

- 5 Write notes on any two of the following : 14
- (a) Discuss Principles and applications of Biosensors.
 - (b) Explain various types of bioreactors used in immobilization
 - (c) Discuss Adsorption and Covalent bonding methods of immobilization
 - (d) Discuss Carrier or Support matrices used in enzyme immobilization.