Code No. 6011/CBCS

FACULTY OF SCIENCE

M. Sc. I – Semester (CBCS) Examination, December 2016

Subject : Biochemistry

Paper – III : Bio Analytical Techniques

Time : 3 Hours **Max. Marks: 80**

Note : Answer all questions from Part–A and Part–B. Each question carries 4 marks in Part–A and 12 marks in Part – B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

1 Principle of AAS
2 Beer Lambert's Law
3 Applications of Ion-exchange chromatography
4 Principle of HPLC
5 Pulse field gel electrophoresis
6 Types of rotors
7 Phosphor – imaging
8 GM counter

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

9 (a) Discuss the instrumentation, principle and applications of fluorescence spectroscopy.

OR

(b) Write a note on :
(i) Difference between NMR and ESR spectroscopy
(ii) Principle and applications of circular dichroism

10 (a) Discuss about:
(i) N-terminal sequencing of proteins
(ii) Principle and applications of gel filtration chromatography

OR

(b) Give an account on :
(i) Principle and applications of GC
(ii) Applications of affinity chromatography

11 (a) Explain the principle, applications and instrumentation of ultra centrifugation.

OR

(b) Write a note on :
(i) Zymography
(ii) Southern blotting

12 (a) With suitable examples discuss about, the biologically useful isotopes.

OR

(b) Give an account on :
(i) Safe disposal and radioactive waste
(ii) Mesel son and Stahl expt

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