

AQ - 840

First Semester M. Sc. (Part-I) (CBCS) Examination

BIOCHEMISTRY

Paper - II

Analytical Techniques

P. Pages : 3

Time : Three Hours]

[Max. Marks : 80

Note : All questions are compulsory and carry equal marks.

1. Write in short on :—

- | | |
|--|---|
| (a) Marker enzymes. | 5 |
| (b) Ultra filtration. | 5 |
| (c) Methods for lysis of animal cells. | 6 |

OR

- | | |
|--|---|
| (p) Freeze drying techniques. | 5 |
| (q) Sub cellular fractionation. | 5 |
| (r) Use of detergents in isolation of membrane protines. | 6 |

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P.T.O.

2. What is chromatography ? Explain any two types of chromatography in detail.

OR

Describe in detail principle, method and applications of HPLC. 16

3. Write in short on :—

- (a) Western blotting. 8
(b) Isoelectric focussing. 8

OR

- (p) Southern blotting. 8
(q) Polyacrylamide gel electrophoresis. 8

4. (a) Describe UV – visible spectroscopy with well labeled diagram and applications. 8
(b) Explain instrumentation of ESR and its applications. 8

OR

- (p) Explain instrumentation of NMR and its applications. 8

- (r) Describe X – ray diffraction with its applications. 8

5. Write in detail about liquid scintillation counter and its applications.

OR

Write in detail principle and application of tracer technique. 16

