



[Time: 3 Hours]

[Max. Marks: 75]

Modern Bio-Analytical Techniques

Q.P. CODE: 5150

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any Three)

3 X 10 = 30 Marks

1. Write a note on origin of GCP and give the guidelines of GCP as per ICMR.
2. Explain the properties of biological media. Explain the analysis of peptides and protein drugs.
3. Define Bioavailability and Bioequivalence. Explain the CDSCO guidelines for design and conduct of BA/BE studies.
4. Explain the general principle and procedures involved in extraction of drugs from biological matrices by solid phase extraction method.

SHORT ESSAY (Answer any Nine)

9 X 5 = 45 Marks

5. Write a note on audit and requirements for GCP compliance.
6. Explain the general principle and procedure involved in protein precipitation.
7. Write the principle and methodology involved in membrane filtration.
8. With suitable examples explain the separation of bio-molecules by gel electrophoresis.
9. Briefly explain the retention of samples and maintenance of records of BA/BE studies.
10. Explain the methodologies for the analysis of prodrugs.
11. Write the principle and procedures involved in the bio-molecule separation by HPLC technique.
12. Explain the facilities to conduct BA/BE studies.
13. Briefly explain the methodology for the analysis of drug metabolites.
14. Give the principle and procedure involved in bio-molecule separation by LC MS/MS technique.

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