

**Q.P. Code :18079**

(Time: 3 Hrs)

Total Marks-80

Please check whether you have got the right question paper.

- NB: (1) Question No.1 is compulsory  
(2) Attempt any 3 questions out of remaining 5 questions  
(3) Draw diagrams wherever necessary

- Q.1 Write general principles of the following techniques 20
- a. Rate zonal Centrifugation
  - b. Isoelectric focussing
  - c. Ion exchange Chromatography
  - d. Spectroscopy
- Q.2 a. Write about the technique of affinity chromatography in detail and write its applications. 10
- b. Explain gas chromatography technique in detail 10
- Q. 3 a. write about the technique and applications of two dimensional electrophoresis. 10
- b. Explain SDS – PAGE Electrophoresis in detail 10
- Q.4 a. Explain Autoradiography and write its applications. 10
- b. Discuss in detail any two methods for measuring radioactivity 10
- Q.5 a. Write a note on types of centrifuges 10
- b. Write a note on immunoelectrophoresis 10
- Q.6. a. Discuss differential centrifugation in detail 10
- b. What do you mean by UV-Vis spectroscopy? Explain the principle and instrumentation. 10

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