



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – MEDICAL LAB TECHNOLOGY

FOURTH SEMESTER – APRIL 2016

ML 4815 / ML 4810 - SEPARATION TECH. & PHARMACEUTICAL CHEMISTRY

Date: 18-04-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

Answer ALL the questions

PART A

10 x 2 = 20 Marks

1. What is Svedberg unit?
2. Name the chemicals used in the DNA isolation.
3. Draw a neat labeled diagram of moving boundary electrophoresis.
4. What is bioavailability of drugs?
5. List the factors that affect electrophoretic separation.
6. What is first –pass drug effect?
7. Comment on SDS.
8. Distinguish Agonists from antagonists.
9. Mention any four gradient medium used in density gradient centrifugation.
10. Define the term retention time.

Answer any FOUR of the following

PART B

4 x 10 = 40 Marks

11. Write Short notes on drug receptors.
12. Describe the components of gas liquid chromatography.
13. Enumerate the importance of northern blotting technique with suitable diagram.
14. Briefly explain the mechanism of drug distribution.
15. Describe rate-zonal and isopycnic centrifugation technique.
16. Discuss different elution techniques used in column chromatography.

Answer any TWO of the following

PART C

2 x 20 = 40 Marks

17. Outline the essential steps involved in the organic extraction of DNA.
18. What is drug clearance? Explain the biotransformation of drug.
19. Elaborate the principle, procedure and clinical applications of HPLC.
20. Discuss in detail the mechanism of pharmacodynamics.
