



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION - MEDICAL LAB. TECHNOLOGY

FOURTH SEMESTER – APRIL 2013

ML4810 - SEPARATION TECHNIQUES & PHARMACEUTICAL CHEMISTRY

Date : 27/04/2013

Dept. No.

Max. : 100 Marks

Time : 1:00 - 4:00

PART-A

Answer **ALL** the questions

(10 X 2=20 Marks)

1. What is Svedberg unit?
2. List down any two anionic and cationic exchangers.
3. Name the most commonly used carrier gases in GLC.
4. Comment on blotting techniques.
5. Comment electrophoretic mobility.
6. What is bioavailability of drugs?
7. Enumerate the enzymes involved in the biotransformation of drugs.
8. Define the term toxicokinetics.
9. Distinguish Stacking gel from separating gel.
10. What is flame ionization detection?

PART-B

Answer any **FOUR** of the following

(4 X 10 =40 Marks)

11. Explain the principle and instrumentation of affinity chromatography.
12. Describe the density gradient centrifugation.
13. Describe the enteral and parenteral routes of drug administration.
14. Elaborate the importance of blotting techniques and add notes on northern blotting.
15. Write down the principle and importance of molecular sieving chromatography
16. Write notes on chemical carcinogens and teratogens.

PART-C

Answer any **TWO** of the following

(2 X 20=40 Marks)

17. Write down the basic principles of chromatography and explain the principle, procedure and instrumentation of ion exchange chromatography.
18. Describe in detail the working principle and diagnostic importance of PCR technique.
19. What is pharmacokinetics? Discuss in detail the biotransformation of drugs.
20. Classify and elaborate the mechanism of preparative centrifugation.