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School of Basic Sciences**Master of Science in Chemistry
Mid Term Examination - May 2024****Duration : 90 Minutes
Max Marks : 50****Sem II - C1PK204B - Techniques in Analytical Chemistry**General Instructions*Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

- 1) Discuss the classification of chromatography based on mobile phase. K2 (2)
- 2) Discuss the two dimensional paper chromatography. K1 (3)
- 3) Utilizing the principle of ion exchange method, explain the detailed process of ion exchange technology for water purification. K2 (4)
- 4) Compare merits and demerits of the instrumentation of GC and HPLC K2 (6)
- 5) Explain the use of solvent extraction our daily life. K3 (6)
- 6) Explain the working of pumps used in HPLC? . K3 (9)
- 7) Calculate the distribution ratio and percent extracted when 20.0ml of 0.1M butyric acid aqueous solution is mixed with 10.0 ml of ether and after separation of layers, it was found that 0.5 milimol of butyric acid remains in the water layer. K4 (8)
- 8) Explain the various trouble shooting process used in HPLC. K4 (12)

OR

- Expalin the various trouble shoting process used in GC. K4 (12)