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School of Biomedical Science
Bachelor of Science Honours in Forensic Science
Mid Term Examination - May 2024

Duration : 90 Minutes
Max Marks : 50

Sem IV - Q1UA401T - Physical and Chemical Analytical Techniques

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) Explain how does distillation differs from evaporation. K2 (2)
- 2) Explain the short path distillation. K1 (3)
- 3) Illustrate the comparison and contrast of the types of titrations used in analytical chemistry. K2 (4)
- 4) Explain the following: a) Filtration, b) Evaporation and c) Crystallization. K2 (6)
- 5) Illustrate the significance of pH in acid-base equilibria. K3 (6)
- 6) Illustrate the significance of Henderson-Hasselbalch equation in the context of buffer solutions. K3 (9)
- 7) Analyze how does Micro SPE helps in isolation and purification of small samples volumes. K4 (8)
- 8) Analyze how does direct titration differ from back titration. K4 (12)

OR

Analyze the method of displacement titrations for quantitative estimations. K4 (12)