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**School of Biomedical Science**

Master of Science in Forensic Science

Mid Term Examination - Nov 2023

Duration : 90 Minutes

Max Marks : 50

**Sem I - Q1PQ103T - Advanced Bio-Chemical Instrumentation**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) Classify the centrifugation on the basis of speed. Also write the significance of each type of centrifugation method. K2 (2)
- 2) Define principle of centrifugation. K1 (3)
- 3) Explain the technique of differential centrifugation with suitable diagram. K2 (4)
- 4) Differential centrifugation can segregate different cell organelle based on their size and density by successively increasing the centrifugal force. Summarize!! K2 (6)
- 5) How can you identify the alkaloid present in datura seed using TLC? Explain! K3 (6)
- 6) Construct a roadmap for the separation of an unknown solution using density gradient method of centrifugation. K3 (9)
- 7) Classify the chromatography depending upon any three different parameters. Provide suitable example of each. K4 (8)
- 8) Write in detail how antigens are distinguished from antibodies? Name different types of antibodies with their functions. K4 (12)

**OR**

Analyse given cocaine sample using HPLC. K4 (12)