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School of Basic Sciences**Master of Science in Chemistry
Mid Term Examination - Nov 2023****Duration : 90 Minutes
Max Marks : 50****Sem I - C1PK102T - Basic 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) Calculate the Mean from the given values. 10.45, 10.55, 10.65, 9.85, 10.10, 10.35, 11.00, 10.50 K2 (2)
- 2) What are the main components of a pH analyzer K1 (3)
- 3) What are buffer solutions and why are they used in pH measurement K2 (4)
- 4) Discuss the significance of Henderson- Hasselbalch equation K2 (6)
- 5) Discuss the mechanism for acid buffers solution. K3 (6)
- 6) Explain the weak base and strong acid titration curve K3 (9)
- 7) Why we use the bromophenol as indicator in place of phenolphthalein in case of a low concentration of strong acid and strong base titration K4 (8)
- 8) Discuss the various types of visual indicators used in redox titration. K4 (12)

OR

Explain the theory of precipitation titration K4 (12)