

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

School of Basic Sciences
Bachelor of Science Honours in Chemistry
Mid Term Examination - Mar 2024

Duration : 90 Minutes
Max Marks : 50

Sem VI - C1UB601T - Chemical Energetics and Radiochemistry

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) Why is isothermal process more efficient? K2 (2)
- 2) Summarize the difference between an Open and Closed System in thermodynamics. K1 (3)
- 3) Identify Kirchhoff's equation? K2 (4)
- 4) Illustrate the concept of Carnot engine. K2 (6)
- 5) Determine What does the Nernst Heat Theorem state about entropy at absolute zero? K3 (6)
- 6) Explain derivation related Nernst equation? K3 (9)
- 7) Discuss an electrolytic cell and how does it differ from a galvanic cell? K4 (8)
- 8) Compare between pH and acidity or alkalinity of a solution? K4 (12)

OR

Compare between pK_a and the strength of an acid? K4 (12)