

QPCODE 20135710403

Reg.No

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



DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – JUNE 2024

Semester: I

800 CH 104 CHEMISTRY I

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

- Outline the significance and the scope of chemistry. (10 Marks)
 - Explain with detailed account of the nature of matter. (10 Marks)
- Elucidate the four ways on the basis of their electronic configurations on how the classification of the elements in the periodic table can be done? (15 Marks)
 - Outline the Covalent character in ionic bond. (5 Marks)
- Outline the factors affecting chemical equilibrium. (10 Marks)
 - With scientific insight, give a detailed account on the Law of mass action. (10 Marks)
- Describe the two types Conformations of ethane. (10 Marks)
 - Give an account of the Chemical properties of alkane. (10 Marks)
- Explain with the use of examples the scientific ways of Alcohols preparation. (15 Marks)
 - Outline the different ways in which Alcohols can be used. (5 Marks)
- Explain the Duality nature of matter with relevant derivatives of equations. (10 Marks)
 - Outline the rules for filling electrons in orbitals according to Aufbau principle and Pauli's exclusion principle. (10 Marks)
- Elaborate on the various Physical Properties of Esters. (10 Marks)
 - Preparation of Aldehydes and Ketones. (10 Marks)