



CRAWFORD UNIVERSITY
COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF PHYSICAL AND EARTH SCIENCES
INDUSTRIAL CHEMISTRY PROGRAMME
HARMATTAN SEMESTER EXAMINATION 2018/2019 SESSION

COURSE CODE: ICH 327

COURSE TITLE: SPECIAL TOPICS IN INORGANIC CHEMISTRY UNIT 3

TIME ALLOWED: 2 HOUR

DATE: February, 2019

- Describe the essential steps involved in the extraction of boron from borax
 - Using a well labelled diagram, describe the cooling curve of a named solvent.
 - What are the detailed processes leading to glass manufacture?
- Describe the necessary steps and processes involved in the extraction and purification of a named group 2 metal
 - Give a detailed description of the industrial manufacture of white ware.
 - What is the composition of emulsion paint?
- Write detailed notes on any three (3) of the following
 - Uses of group 4 metals
 - Reactivity of group 2 metals
 - Uses of magnesium
 - Polymorphism
- Using a Eutectic diagram, describe solid-liquid equilibrium. What is "eutectic halt"
 - Describe the necessary raw materials used in glass manufacture.
 - What are the raw materials used in cement manufacture?
 - What is meant by the terms "liquidus and solidus" temperatures?
- Describe the elements that form the members of group 3 in the periodic table showing the relationship in their physical and chemical properties
 - Describe with a diagram, the extraction of a named group 1 metal.
 - What are polytypes?
- What are the raw materials used in making ceramics?
 - Discuss the trend of properties of group 1 metals in the periodic table in terms of reactivity, atomic radius, melting point, boiling point and ionization potential
 - What are the usual varieties of glass and their composition?