VCD 6/10/2017 CHEMISTRY P-III S.Y.B.Sc SEM-IV MARKS 75 TIME 2.5HRS

NOTE: i) All the questions are compulsory.

ii) Figures to right indicate full marks.

iii) Use of non –programmable calculator / log table is allowed.

Q.1. Attempt any four: [20]

A) Distinguish between dry corrosion and wet corrosion.
B) Write the cleaning action of soap with micelle formation.
C) Give any five properties of oils and fats.
D) Explain the electroplating process of corrosion protection
E) Explain the kettle process in the manufacture of soap.
F) Describe the froth floatation method in extraction of metals from ores.
G) Give any five effects of corrosion.
H) Describe the gravity separation method in concentration of ore.

Q.2. Attempt any four: [20]

A) Explain the following metallurgical operations: i. Calcination and ii. Reduction
B) What are the common environmental toxicants?
C) Define: i. Iodine value ii. Saponification value iii. Acid value iv. Corrosion v. Hardening of oil.
D) Explain the process of Leaching and process of displacement.
E) Explain the refining of copper by electrorefining method.
F) Explain aspects of Mechanism of toxicity due to heavy metals.
G) Explain lead toxicity.
H) Explain the dose response curve and lethal dose, effective dose with suitable example.

Q.3. Attempt any four: [20]

A) What are different types of water pollutions?
B) Explain in detail eutrofication.
C) Write a note on effects of soap and detergent as water pollutants.
D) Write a note on trickling filter method.
E) Write a note on BOD and COD
F) Explain how temperature, pH and toxicity affect the process of biological oxidation.
G) Name the steps involved in tertiary treatment of water. Explain the pond method.
H) Write a note on oil pollution.

Q.4. Attempt any three: [15]

A) Explain the continuous process in the manufacture of soap.

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B) Explain the electrochemical corrosion with an example.
C) Explain different types of refining.
D) What is toxicology? Explain different types of toxicants.
E) Explain the primary treatment of waste water.
F) What is anerobic process? Explain its mechanism in short.