

[This question paper contains 4 printed pages ]

5202

Your Roll No

B.Sc. Prog./II

J

IC-201 Industrial Chemicals and Environment

(NC – Admissions of 2005 & onwards)

Time 3 Hours

Maximum Marks 75

(Write your Roll No on the top immediately  
on receipt of this question paper)

Attempt six questions in all including  
Q No 1 which is compulsory

- 1 (a) Explain the Term 'Biodegradability'
- (b) What are the characteristics of a good disinfectant?
- (c) Define the Term BOD How does an increase in BOD leads to water pollution?
- (d) Explain the limitations and advantages of Zeolite process for softening and hard water
- (e) What is Earthenware and stoneware?

(3×5=15)

P T O

5202

2

- 2 (a) Name the common element present in the anode mud in electrolytic refining of copper. Why are they so present? (4)
- (b) State the role of silica in Metallurgy of Co. (2)
- (c) Differentiate between Minerals and ores with suitable examples. (2)
- (d) Explain the KROLL's process for making Titanium. Can zirconium be prepared by this method? (4)
- 3 (a) Why is Glazing important for ceramic articles and how is it carried out? (5)
- (b) What is refractory material? Give its types and write about high alumina refractory. (5)
- (c) How Frit is prepared? (2)
- 4 Write note any three of the following
- (a) Mixed-bed deioniser
- (b) Green house effect
- (c) Solvent Extraction Process
- (d) Liquation process for refining of metal

(4×3=12)

5202

3

- 5 (a) Give the Wet process for the manufacture of cement (6)
- (b) What are the silica and alumina modules for expressing the Quality of cement? (3)
- (c) If the concentration of lime does not lie with in 58 to 65% of the cement, how does it affect the quality of cement (3)
- 6 (a) What is cryogenics? Where is this technology used? (2)
- (b) What are the general methods employed for the liquefaction of air? Discuss the principle involved therein (5)
- (c) Why do the producers of soda-ash produce dense ash in large amounts? (5)
- 7 (a) Discuss (a) Double catalysis or interpass absorption design
- (b) What are dimensionally stable anodes?
- (c) What is meant by dual pressure technique in the preparation of Nitric Acid? (4×3=12)

P T O

5202

4

- 8 (a) What is break-point chlorination and what is its significance ?
- (b) What is meant by available chlorine in bleaching powder How it can be estimated in a sample of bleaching powder ?
- (c) What are ion-Exchange resin ? How are they used to purify water ? (4×3=12)

HowToExam.com

(300)\*\*\*\*