

[This question paper contains 3 printed pages.]

3853

Your Roll No.

B.Sc. Prog./II

IS

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) What are Lamellar an intercalation compound of graphite ?
- (b) Why gases are liquified before storage & transportation ?
- (c) What is caustic embrittlement ?
- (d) How will you prepare a Glass resistant to "Hydrofluoric acid" ?
- (e) Write a note on "Chlorination" as a means of disinfection of water for a medium size township.
(3×5=15)

P.T.O.

2. (a) Explain in detail Liquid-Liquid countercurrent technique with a labelled diagram.
- (b) What is aerobic and Anaerobic biological oxidation? How have these techniques been used for the treatment of sewage? (6×2=12)
3. (a) What is "hardness of water"? How is it determined by EDTA Method?
- (b) Explain the pollution caused by NO_x and SO_x gases. Suggest some measure to control air pollution caused by them. (6×2=12)
4. (a) Give flow diagram for the manufacture of Glass. (3)
- (b) What is meant by plasticity of clay? (3)
- (c) Give detail about cement manufacture. (6)
5. (a) Explain dissimilarities between allotropic forms of carbon. (3)
- (b) Discuss the role of activator and depressant in Froth floatation process. (3)
- (c) Explain Electrodialysis with a neat and clean diagram. (6)

6. (a) Describe "Arc process" for the manufacture of Acetylene.
- (b) Discuss the manufacture of soda ash by solvay process. (6×2=12)
7. Describe any **three** of the following :
- (a) Zone refining
- (b) Ozone hole
- (c) Green house effect
- (d) Scale and sludge formation (4×3=12)
8. (a) How is HNO_3 manufactured by Ostwald's process ?
- (b) What is Eutrophication ? Discuss its sources & how it affect the receiving eco-system. (6×2=12)