

Printed Pages: 01

University Roll No.....

Second Mid Term Examination, 2016-2017

B.Tech. I Year I Semester

AHC-1101: ENGINEERING CHEMISTRY

Time: 1 ½ Hrs.

Max. Marks: 20

Section-A

Note: Attempt all Questions

1X5= 5Marks

- I. What are the boiler problems?
- II. Mention two examples of industrially important smart materials.
- III. Write the name of monomer of nylon 6, 6.
- IV. CaCO_3 is accepted as a standard to represent hardness of water, why?
- V. Discuss role of annealing in manufacturing of glass.

Section-B

Note: Attempt any three Questions

2X3= 6Marks

- I. Discuss briefly about Potash glass and Jenna glass.
- II. Distinguish thermoplastic and thermosetting polymer.
- III. Explain calgon conditioning for treatment of water to be used in boiler.
- IV. Why are the functional materials so important for industries? Mention at least four reasons.

Section -C

Note: Attempt any three Questions

3X3= 9Marks

- I. Reverse Osmosis process is the best water purification process, justify. Discuss different technical aspects of Reverse Osmosis for water treatment with diagram.
- II. Write the preparation and industrial applications of the following.
a) Teflon b) Buna-N c) PLA
- III. The hardness of 100 Lts of a water sample is completely removed by passing through zeolite softener which required 10 Lts brine solution containing 1 g/l of NaCl for regeneration. Calculate hardness of water in ppm.
- IV. Discuss the mechanism of preparation of polypropylene using Ziegler-Natta catalyst.