

Code: R5100304

R05

B. Tech I Year (R05) Supplementary Examinations, May 2012

ENGINEERING CHEMISTRY

(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Explain types of hardness of water with suitable examples.
(b) Give brief account on boiler troubles.
- 2 (a) Explain the estimation of hardness of water by EDTA method.
(b) Write note on reverse osmosis.
- 3 (a) Define corrosion. Discuss the electro chemical theory of corrosion with diagram.
(b) Write short note on impressed current cathodic protection.
- 4 (a) Discuss various types of metallic coatings briefly.
(b) Explain ceramic protective materials.
- 5 (a) What is polymerization? Explain various types of polymerization methods with suitable examples.
(b) How to prepare Buna – S and Buna – N?
- 6 What is refractory? How do you classify refractory materials and explain properties of refractory materials?
- 7 (a) Explain thick film lubrication with diagram.
(b) What are the important properties of lubricating oils?
- 8 Discuss the experimental determination of calorific value by using bomb calorimeter.
