

B.Tech I Year II Semester (R15) Regular & Supplementary Examinations May/June 2017

ENGINEERING CHEMISTRY

(Common to CE, EEE and CSE)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Define reverse osmosis and give the advantages of reverse osmosis.
 - (b) What are different kinds of impurities present in water?
 - (c) Define polymer and give two examples for thermoplastics.
 - (d) Give any two important applications of conducting polymers.
 - (e) Explain rechargeable batteries, give examples.
 - (f) What are the factors affecting the corrosion?
 - (g) What is the composition of biogas and how it can be prepared?
 - (h) Define calorific value; give its units.
 - (i) Write notes on semi solid lubricants.
 - (j) What is fullerene?

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 Give brief note on internal treatment of boiler feed water.

OR

- 3 Explain permutit process for demineralization of brackish water in detail.

UNIT – II

- 4 Define and explain addition polymerization method by taking suitable example.

OR

- 5 Give brief note on polyphosphazenes and Silicones.

UNIT – III

- 6 What is fuel cell? Give their important characteristics, advantages and limitations.

OR

- 7 Define corrosion. Explain evolution of hydrogen type of corrosion in detail.

UNIT – IV

- 8 What are the methods used to prepare synthetic petrol? Explain Fischer Trop synthesis.

OR

- 9 What is coal? Explain proximate analysis of coal.

UNIT – V

- 10 Define lubrication: Explain different theories of lubrication with neat sketch.

OR

- 11 Explain any five important properties of refractory materials.
