

B.Tech I Year II Semester (R15) Regular & Supplementary Examinations May/June 2019

ENGINEERING CHEMISTRY

(Common to CE, EEE & CSE)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What is priming and foaming?
 - (b) What is Calgon? What is its use in water technology?
 - (c) Recall the term functionality of a monomer.
 - (d) List out any two important applications of Polyvinyl chloride.
 - (e) Define reversible and irreversible cell with example.
 - (f) Mention any two advantages of electroless plating.
 - (g) State Cetane number.
 - (h) Write the composition of water gas.
 - (i) Give any two requisites of a good refractory.
 - (j) Give short note on oiliness of a lubricant.

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

- 2 Explain the types of alkalinity and also determine the alkalinity of given water sample.

OR

- 3 (a) Write elaborately about demineralization of hard water with a neat diagram.
(b) Explain zeolite process of hard water softening with diagram.

UNIT – II

- 4 Discuss the mechanism of free radical polymerization.

OR

- 5 Explain preparation, properties and uses of Buna - S and polysulfide.

UNIT – III

- 6 Explain the cathodic and anodic reactions in Ni-Cd batteries with applications.

OR

- 7 What are the factors which influence the rate of corrosion?

UNIT – IV

- 8 Describe the Otto-Hoffmann's method of coke manufacture and recover various by product.

OR

- 9 Explain the fixed bed catalytic cracking for manufacture of gasoline with neat sketch.

UNIT – V

- 10 Explain the manufacture and properties of Portland cement.

OR

- 11 How many types of lubrication process? Explain in detail with diagram.
