

(DE 104)

B. Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of First Year)

Paper - IV : Chemistry

Time : 3 Hours

Maximum Marks : 75

Answer question No. 1 compulsory

(15 × 1 = 15)

Answer ONE question from each unit

(4 × 15 = 60)

- 1) a) Coagulation.
b) Sterilization.
c) Sludge.
d) Semi conductor.
e) Metallic bonding.
f) Monomer.
g) Plastics
h) Teflon
i) Poly urethane Rubber
j) Battery
k) Nernst equation
l) Corrosion
m) Cathodic protection
n) Sacrificial anode
o) Iron Sulphide

Unit – I

- 2) a) What is hardness? How do you express hardness?
b) Explain the estimation of hardness of water by EDTA method?

OR

- 3) a) Explain briefly about lime – soda process?
b) Write a short notes on Boiler corrosion?

Unit – II

- 4) a) Derive the Bragg's equation?
b) Write a short notes on Semi-Conductors and Insulators?

OR

- 5) Explain briefly about the mechanisms of free-radical and Anionic chain polymerization?

Unit – III

- 6) a) Explain the processing and vulcanization of natural Rubber?
b) Buna – N

OR

- 7) Explain the following batteries :

- a) Zinc – carbon battery
b) Nickel – cadmium battery
c) Modern lithium batteries

Unit – IV

- 8) a) What is corrosion? Explain briefly about electro chemical theory of corrosion?
b) Electroplating

OR

- 9) a) Galvanic Corrosion
b) Pitting Corrosion
c) Thermo galvanic Corrosion
d) Cesium – Lithium – Ferric chloride

