

Code: CE1T3, CS 1T4, EC 1T3, IT1T3

I B.Tech-I Semester-Regular Examinations-February 2013

ENGINEERING CHEMISTRY

(Common for Civil, CSE, ECE, IT)

Duration: 3hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) What is hardness of water? Describe a method for the determination of hardness of Water. (7m)
b) Describe the process of municipal water treatment. (7m)

2. a) What are semi-conductors? How do you classify them? Explain with suitable examples. (7m)
b) What is super conductivity? Describe the properties and applications of super conductivity. (7m)

3. a) Describe the construction and working of a photovoltaic cell. (7m)
b) What is Green house effect? Explain the phenomenon and its consequences. (7m)

4. a) Define corrosion. Explain the mechanism of Dry
(Chemical) corrosion. (7m)
- b) What is Paint? List out various constituents and explain
them. (7m)
5. a) What are Polymers ? How do you classify them? Give
examples. (6m)
- b) Write notes on i) Conducting Polymers and ii)
Biodegradable Polymers (8m)
6. a) What are Plastics ? Differentiate thermoplastic and
thermosetting plastics. (8m)
- b) Describe the Engineering applications of polymers (6m)
7. a) What is nano material ? Write preparation, properties and
uses of carbon nano tubes . (7m)
- b) Write the Engineering applications of nano materials. (7m)
8. a) What are the principles of Green Chemistry? (8m)
- b) Describe any two methods of Green synthesis. (6m)