

B.Tech. I Year(R07)) Supplementary Examinations, May/June 2010  
ENGINEERING CHEMISTRY  
(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions  
All Questions carry equal marks

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1. What is meant by disinfection? What is its significance? Explain the different methods used for disinfection of surface waters. [16]
2. (a) What is meant by desalination? What is its significance?  
(b) Explain the different methods used for the desalination of brackish water. [4+12]
3. (a) Explain how nature of corroding environment influence the rate of corrosion?  
(b) Explain how heterogeneity of metal increases the rate of corrosion? [8+8]
4. Discuss about various types of Chemical conversion Coatings. [16]
5. (a) What are the advantages of using plastics over other materials? [8]  
(b) Explain the following :
  - i. Copolymerisation.
  - ii. Condensation polymerization.[4+4]
6. Define lubricant. Discuss the important properties of the lubricating oils. [16]
7. Write a short notes on: [16]
  - (a) Aniline point
  - (b) Iodine number
  - (c) Saponification number
  - (d) Carbon residue
  - (e) Viscosity index.
8. (a) Define a Fuel? How chemical fuels are classified and give examples for each.  
(b) What is meant by Calorific value of a fuel? Define calorie and kilocalorie. [10+6]

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