

**B.Tech I Year(R05) Supplementary Examinations, May 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. Explain the reasons of formation, disadvantages, and prevention of the following boiler troubles. [16]
  - (a) Caustic conbriettlement
  - (b) Carry over
  - (c) Boiler corrosion.
3. Explain how corrosion control can be brought about by the following methods. [8+8]
  - (a) Modifying the environment
  - (b) Cathodic protection.
4. Write short note on: [16]
  - (a) Distemblers
  - (b) Emulstion paints
  - (c) Lacquers.
5.
  - (a) Write down any two distinguishing features of PVC.
  - (b) Explain the differences between thermoset and thermo plastics.
  - (c) What is moulding of plastics? Explain compression moulding technique in detail. [5+5+6]
6. Explain the mechanisms of different types of lubricating process. [16]
7. Discuss the various types of liquid lubricants. [16]
8.
  - (a) What is petroleum oil? Explain the fractional distillation of crude oil.
  - (b) What are the various fractions obtained from refining and mention their uses? [8+8]

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