

B.Tech I Year (R07) Supplementary Examinations, December 2010
APPLIED CHEMISTRY
(Civil Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. Write a short notes on the following:
 - (a) Break - point chlorination
 - (b) Dissolved oxygen
 - (c) Hardness of water
 - (d) Sedimentation and co-agulation.
2. Distinguish between the following:
 - (a) Scales and Sludges Soft water and demineralised water.
 - (b) Lime soda process and demineralization process of water.
3. (a) Discuss localized attack on metals. Explain in detail the condition responsible for it.
(b) Explain the theory of passivity.
4. Explain in detail the various methods of Chemical conversion coatings.
5. (a) What are the different constituents of moulding of plastics and write their uses.
(b) How natural rubber is processed?
6. (a) What is a refractory material? Explain the differences between acidic and basic refractories?
(b) Explain the following properties as applied to refractory materials
 - i. Refractoriness
 - ii. Refractoriness under load
 - iii. Thermal spalling.
7. (a) Comment on lubricants used for transformers.
(b) How will you select a lubricant?
(c) What are the types of greases?
8. What are the chemical constituents of Cement? Discuss the function of each constituent.
