Code No: RA 9ABS103a

II B.Tech I Semester(R09) Supplementary Examinations, May 2011. ENGINEERING CHEMISTRY (Common to Computer Science & Engineering, Information Technology) For Students of R07 regulation readmitted to II B.Tech I Semester R09 Time: 3 hours Max Marks: 70 Answer any FIVE questions

Answer any FIVE questions All questions carry equal marks *****

- 1. (a) Write the basic principle involved in the determination of chlorides present in the water.
 - (b) Why is Calgon condition is better than Phosphate condition?
- 2. (a) Define corrosion and explain pilling bed worth rule.
 - (b) Explain the factors which affect the rate of corrosion?
- 3. (a) Define vulcanization? How does it improve the properties of natural rubber?
 - (b) Write Preparation, properties and important applications of Teflon.
- 4. Describe the determination of flash point by penskey marten's apparatus with label Diagram.
- 5. What are concentration cells? Derive expression for the EMF of concentration cell.
 - (a) with transfer and.
 - (b) without transfer.
- 6. (a) What is a metastable equilibrium? Explain this state in water system.
 - (b) State the limitations of phase rule. Give applications of eutectics.
- 7. Write short notes on:
 - (a) Coal Gas
 - (b) Biogas
 - (c) Units for calorific value.
- 8. (a) What are refractories ? How are they useful in metallurgical industries ?
 - (b) Explain the differences between the acidic and refractories with suitable examples and their applications.
