

Subject Code: R10204/R10**Set No - 1****I B.Tech II Semester Supplementary Examinations Dec./Jan. – 2015/2016****ENGINEERING CHEMISTRY – II****(Common to All Branches)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions**
All Questions carry equal marks********

1. (a) Explain the following
(i) Solution polymerization
(ii) Emulsion polymerization
(b) Write a note on mechanical properties of polymers
[8+7]
2. (a) Describe with a neat sketch, the process of compression moulding. How does it compare with injection moulding?
(b) Write a note on aramid fibre reinforced plastics
[8+7]
3. (a) Describe the manufacture of following polymers with uses and properties
(i) Buna-s
(ii) polyurethane
(b) Write a note on compounding of rubber
[8+7]
4. (a) Illustrate any two methods used in preparation of nanomaterial's
(b) Write a note on quantum dot and nanowires
[8+7]
5. (a) What are the constituents of cement? Discuss the mechanism of setting and hardening of cement.
(b) Describe the chemical conversion that take place in the manufacturing of ceramic products.
[9+6]
6. (a) What is meant by cracking of petroleum? Explain fluidized bed catalytic method of obtaining gasoline. Give its mechanism
(b) Describe the determination of calorific value of solid fuel using bomb calorimeter.
[8+7]
7. (a) Write about mechanism of drying of paints
(b) How does the nature of metal influences corrosion
[8+7]
8. (a) Explain need& principles of green chemistry
(b) Write the microwave induced method for green synthesis
[9+6]
