

Code: AE2T2

I B.Tech-II Semester-Regular Examinations - July 2013

ENGINEERING CHEMISTRY - II
(For Aeronautical Engineering)

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

- 1 a) Define single electrode potential. Derive Nernst equation and narrate its applications. 7 M
- b) Describe the construction and working of Hydrogen-Oxygen fuel cell. 7 M
- 2 a) Describe the process of treatment of brackish water by reverse osmosis. 7 M
- b) Explain any water softening method. 7 M
- 3 a) What is solar energy? List out the problems in technical utilisation. 7 M
- b) Write notes on green house concepts. 7 M

- 4 a) Define corrosion and give the mechanism of chemical oxide (Dry) corrosion. 7 M
- b) Write notes on metallic coatings. 7 M
- 5 a) Define polymerisation. Illustrate the types and classification of polymers. 8 M
- b) Write notes on Engineering applications of polymers. 6 M
- 6 a) What are plastics? Describe various moulding methods of plastics. 9 M
- b) Explain in brief the fibre reinforced plastics. 5 M
- 7 a) Explain the preparation, properties and applications of fullerenes. 8 M
- b) Write notes on carbon nano tubes. 6 M
- 8 a) What are the principles of green chemistry? Narrate. 9 M
- b) Illustrate the microwave induced method of green synthesis. 5 M