

Code: AE2T2

I B.Tech-II Semester-Regular Examinations - July 2014

**ENGINEERING CHEMISTRY-II
(Aeronautical Engineering)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

1. a) Differentiate primary and secondary cells. 7 M
b) Describe the construction and working of Nickel-Cadmium battery. 7 M
2. a) Define hardness of water. Describe a method for the determination of hardness of water. 7 M
b) Explain the municipal water treatment process. 7 M
3. a) Describe the construction and working of photovoltaic cells. 8 M
b) Write notes on solar heaters. 6 M
4. a) Which factors influence rate of corrosion ? Explain 7 M
b) What is a paint ? Explain the constituents of paints. 7 M

5. a) Define polymerisation. Explain Ziegler-Natta catalysis. 5 M
- b) Write the preparation, properties and uses of PVC, PTFE and Bakelite's. 9 M
6. a) What is compounding of plastics? Explain moulding constituents of plastics. 9 M
- b) Write notes on bullet proof plastics. 5 M
7. a) Write the preparation, properties and uses of carbon nano tubes. 9 M
- b) Describe the Engineering applications of nano materials. 5 M
8. a) What is green chemistry? Describe super critical fluid extraction method in green synthesis. 6 M
- b) Write notes on phase transfer catalyst and ultra sound methods of green synthesis. 8 M