

**Engineering Chemistry-I**  
**Important 10mark questions**

**Unit I**

1. Derive the relationship between molecular mass and vapour density.
2. Explain Oxidation and reduction by electronic concept.
3. How is the total hardness of water estimated by EDTA method?

**Unit II**

1. Explain the application of nano-particles in medicine and biomaterials.
2. Tabulate any five differences between lyophilic and lyophobic.
3. Explain the following (i) Tyndoll effect (ii) Electrophoresis

**Unit III**

1. Describe the reverse osmosis process of purification of water.
2. Explain the industrial applications of catalysts.
3. Calculate the hydrogen ion concentration of a solution whose pOH is 5.8.

**Unit IV**

1. What is electroless plating? What are its advantages over electroplating?
2. Describe the construction and working of lead-acid storage cell.
3. Explain the construction and working of a Daniel cell.

**Unit V**

1. Explain the two types of cathodic protection methods of protection of corrosion.
2. Explain the important surface coatings to protect metals from corrosion.
3. What are the components present in paint? Give their function with examples.