

## 2<sup>nd</sup> Unit test (Question Bank )

Class: All branches (First Sem K scheme)

Basic Science BSC (311305)

### Unit V. Electrochemistry and metal corrosion

#### 2 marks question

1. State Faraday's first law of electrolysis. Give the equation and explain the terms.
2. Define ionization and electrolytic dissociation.
3. Define dry corrosion and wet corrosion.
4. State how the position of the metal in the galvanic series affects the rate of corrosion.

#### 4 marks question

1. A given quantity of electricity is passed through two cells containing copper sulphate and silver nitrate solutions respectively. If 0.99 g of silver and 0.29 g of copper are deposited, find the equivalent weight of silver when that of copper is 31.6.
2. Explain electro refining of impure copper.
3. Describe hydrogen evolution mechanism in acidic medium with example
4. Explain cathodic protection using sacrificial anode

### Unit VI Engineering materials and catalysis

#### 2 marks question

1. List the ingredients of paint.
2. Give 2 applications each of glass wool and thermocole.
3. State any 4 functions of a lubricant.
4. Define adhesive. Give 2 example of natural adhesive.

#### 4 marks question

1. Differentiate between paint and varnish
2. Give the classification of polymers
3. Explain catalytic promotor and inhibitor with example
4. Define
  - i. Flash point
  - ii. Fire point
  - iii. Viscosity
  - iv. Saponification value