

Question Bank (G scheme)

Name of subject: APPLIED CHEMISTRY

Unit Test : I

Subject code: 17103

Course : ALL

Semester: I

Chapter--1. Chemical bonding (Marks-12)

(2-marks question)

- 1) Write composition of modern atom.
- 2) Why atom is electrically neutral.
- 3) Arrange the following orbitals in the increasing order of energy $2p, 4p, 3s, 3d, 4s, 1s, 3p, 2s$.
- 4) Define -Isotope & Isobar.
- 5) Define -Atomic number & Mass number
- 6) Define -Valency & electrovalency

(3-marks question)

- 6) Write any three differences between electrovalent and covalent substances.
- 7) Describe the formation of water molecule (H_2O) with the help of schematic diagram.
- 8) Describe the formation of MgO molecule.
- 9) Differentiate between orbit & orbital
- 10) Explain the formation of NITROGEN molecule.

(4-marks question)

- 11) Write orbital electronic configuration of elements
 $7N, 11Na, 17Cl, 24Cr$,
- 12) Write any four assumptions of Bohr's atomic theory.
- 13) Write symbol, location, charge, & mass of proton, electron and neutron.

Chapter-2. Electrochemistry (Marks-14)

(2-marks question)

14) Write two differences between strong and weak electrolytes.

15) What is reduction potential.

16) Why is Blister copper electro-refined.

17) Define conductor & nonconductor

(3-marks questions)

18) Same quantity of current is passed through CuSO_4 and AgNO_3 solution. If 3.027 g of Cu is deposited, calculate weight of silver deposited (Eq. wt. of Cu = 31.77, Eq. wt. of Ag = 108)

19) State Faraday's first law of electrolysis. Drive its equation.

20) Define PH. Calculate the pH of 0.0034N HCL assuming complete dissociation.

(4-marks question)

21) State and explain Electroplating of silver.

22) Describe mechanism of electrolysis of CuSO_4 using platinum electrodes with the help of a labeled diagram and chemical-reaction occurring at cathode & anode.

23) Define degree of ionization. State & explain factors affecting on degree of ionization.

24) State and explain electrorefining of copper.