SUB: CHEMISTRY   **CLASS: 11TH**

Very short answer type questions

1. What is the significant figure in 1.050×10^4?

2. Calculate wave number of yellow radiations having wavelength of 5800 A°.

3. What is the difference between a quantum and a photon?

4. Mention the draw backs of Rutherford's atomic model

5. What do mean bygram atomic mass. One million silver atoms weigh 1.79×10^{16} g. Calculate the gram atomic mass of silver.

6. What do mean by molarity. Calculate the molarity of NaOH in the solution prepared by dissolving its 4 g in enough water to form 250 mL of the solution

SHORT ANSWERS TYPE QUESTIONS

1. Calculate wave number of yellow radiations having wavelength of 5800 A0.

2. What are the values of n and l for 2p orbital?

3. Energy of an electron in ground state of H-Atom is -2.18×10^{-18} J. Calculate the ionisation enthalpy of atomic H in terms of J/Mol?

4. State Pauli Exclusion Principle.

5. When α- rays hit a thin foil of gold, very few α- particles is deflected back. What does it prove?

6. Using s,p,d and f notation, describe the orbital with the following quantum numbers-

(a) n=1,l=0 (b) n=3, l=1 (c) n=4, l=2

7. How many electrons in an atom have the following quantum numbers?

a. n=4, m_s= -1/2 b. n =3 , l=o

8. An electron is in one of the 3d orbitals, Give the possible values of n,l and m for this electron.

9. Calculate the total number of angular nodes and radial nodes present in 3p orbitals.

LONG ANSWER TYPE QUESTIONS

1. A compound made up of two elements A and B has A= 70 %, B = 30 %. Their relative number of moles in the compound are 1.25 and 1.88. calculate

a). Atomic masses of the elements A and B

b). Molecular formula of the compound , if its molecular mass is found to be 160?

2. State (a)Hund's Rule of maximum Multiplicity (b) Aufbau Principle (c) n+l rule

3.State Heisenberg's uncertainty principle.calculate the uncertainty in the position of an electron if the uncertainty in its velocity is 5.7 x 10^5 m/s.

TOPICS: 1.Some basic concepts of chemistry
2.Structure of an atom
3.Classification of elements.