CHEMISTRY **ASSIGNMENT 4-NOV** **STRUCTURE OF ATOM**

1. Name three sub atomic particles of an atom.
2. Define atomic number and mass number.
3. Describe the α particle scattering experiment conducted by Rutherford with a diagram.
4. Describe the model of atom given by J.J.Thomson.
5. What are the limitations of J.J.Thomson's model of an atom?
6. Describe the Bohr's model of an atom.
7. What are the drawbacks of Rutherford's model of atom?
8. Atomic number of chlorine atom is 17. What is the atomic number of Cl^- ?
9. If number of electrons and protons in an atom is 9 each, what is the atomic number of the element?
10. Write the distribution of electrons in following atoms- carbon, sodium, oxygen, sulphur, lithium, silicon, phosphorous, nitrogen.
11. What is valency? If z = 4, what is the valency of the element?
12. What are valence electrons? Give example to explain, how it helps in finding the valency of an atom.
13. Compare an electron, proton and neutron in terms of charge and mass.
14. define the following: (a) mass number (b) atomic number (c) isotopes (d) isobars
15. Write difference between isobars and isotopes.
16. The average atomic mass of a sample of an element X is 16.2u. What are the percentages of isotopes ${}^{16}_{8}X$ & ${}^{18}_{8}X$ in sample?