

Structure of Atom

1. The total number of electrons in Nitrogen is 7. What is its valency ?
2. What name is given to pair of atoms such as $^{14}_7\text{N}$ and $^{15}_7\text{N}$?
3. Name three subatomic particles present in an atom.
4. Name the negatively charged particle present in the atom of all the elements.
5. Which part of atom was discovered by Rutherford's alpha particle scattering experiment?
6. Why is an atom neutral in spite of the presence of charged particles in it ?
7. How does a proton differ from an electron?
8. Write the distribution of electrons in an atom of element whose atomic number is 18. What is special about the outermost shell of atom in this element ?
9. An element has $Z = 7$. What is the valency of the element? Also name the element.
10. Differentiate between isotopes and isobars.
11. What is the relationship between the valency of an element and the number of valence electrons in its atoms ?
12. Describe Thomson's model of atom. Which subatomic particle was not present in Thomson's model of atom?
13. Describe Rutherford's model of atom.
14. From the symbol $^{31}_{15}\text{P}$ state :
 - (a) Mass number of phosphorus.
 - (b) Atomic number of phosphorus.
 - (c) Electronic configuration of phosphorus.