

# Learnyz Academy

## Worksheet: Structure of The Atom

1. Write the complete symbol for the atom with the given atomic number [Z] & mass number [A].
2. Why does Helium have zero valency?
3. Define the following terms: a) Atomic number b) Mass number
4. Which is heavier, neutron or proton?
5. How many electrons are present in the valence shell of nitrogen & argon?
6. How many times is a proton heavier than an electron?
7. Give one achievement and one limitation of J.J. Thomson's model of atom.
8. Write the charges on subatomic particles.
9. Name the scientist and his experiment which proved that the nucleus of an atom is positively charged.
10. State the maximum capacity of various shells to accommodate electrons.
11. From the symbol  $^{32}\text{S}$ , state: i) Atomic number of sulphur ii) Mass number of sulphur iii) Electronic configuration of sulphur
12. Give the symbol, relative charge & mass of the three subatomic particles.
13. Which kind of elements have tendency to lose electrons? Give example.
14. An atom contains 3 protons, 3 electrons and 4 neutrons. What is its atomic number, mass number & valency?
15. Name the particles which determine the mass of an atom.
16. What are isobars?
17. What type of charge is present on the nucleus of an atom?
18. How many electrons at the maximum can be present in the first shell?
19. What are valence electrons? Give example.
20. Identify the isotopes out of A, B, C & D:  $^{33}\text{A}$ ,  $^{33}\text{B}$ ,  $^{33}\text{C}$ ,  $^{33}\text{D}$