



Class 9 Science | Journey Inside The Atom

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. An atom has 11 protons and 12 neutrons. Its mass number is:

A. 12 B. 23 C. 1 D. 11

2. A neutral atom has 17 protons. Its electron count is:

A. 18 B. 17 C. 16 D. 34

3. Which particle has no electric charge?

A. Cation B. Neutron C. Electron D. Proton

4. Rutherford's rare large-angle deflections indicated a:

A. Nucleus occupying nearly all space
B. Neutron-only atom
C. Uniform negative sphere
D. Small dense positively charged nucleus

5. Most alpha particles crossed gold foil nearly undeflected because atoms are mostly:

A. Empty space B. Solid nuclei
C. Neutrons D. Positive matter

6. The electronic distribution of neutral magnesium ($Z=12$) is:

A. 2,10 B. 2,8,2 C. 8,4 D. 2,6,4

7. An atom with electronic distribution 2,8,7 usually has valency:

A. 8 B. 7 C. 17 D. 1

8. An atom with distribution 2,8,8 has valency:

A. 1 B. 2 C. 0 D. 8

9. Two atoms with the same atomic number but different mass numbers are:

A. Isotopes
B. Identical in neutron count
C. Isobars
D. Different elements necessarily

10. Atoms with mass number 40 but atomic numbers 18 and 20 are:

A. Isobars B. Ions of one element
C. Identical atoms D. Isotopes

11. Which property fixes the identity of an element?

A. Total electron mass
B. Neutron number alone
C. Physical state
D. Proton number

12. The maximum electron capacity of the K shell is:

A. 32 B. 18 C. 8 D. 2

13. A sodium atom loses one electron. Its proton number:

A. Becomes 12 B. Becomes 10
C. Becomes zero D. Remains 11

14. Bohr's model assigns electrons to:

A. Only the nucleus
B. Positive spherical jelly
C. Any energy with no restrictions
D. Definite permitted energy levels

15. Chlorine-35 and chlorine-37 differ in their:

A. Proton counts B. Chemical symbols
C. Atomic numbers D. Neutron counts

ANSWER KEY — check after completing all 15 questions

1.B 2.B 3.B 4.D 5.A 6.B 7.D 8.C 9.A 10.A 11.D 12.D 13.D 14.D 15.D