

Dear student following is an Easy level [●○○] test paper. Score of 21 Marks in 10 Minutes would be a satisfactory performance. Questions 1- 9 (+3, -1). (Only one option is correct)

- Q.1** When alpha particles are sent through a thin metal foil, most of them go straight through the foil because :
- (A) Alpha particles are much heavier than electron
 (B) Alpha particles are positively charged
 (C) Alpha particles move with high velocity
 (D) Most part of the atom is empty
- Q.2** Which is correct statement about proton ?
- (A) Proton is nucleus of deuterium
 (B) Proton is α - particle
 (C) Proton is ionized hydrogen molecule
 (D) Proton is ionized hydrogen
- Q.3** The electron was shown experimentally to have wave properties by :
- (A) De broglie
 (B) Davisson and Germer
 (C) N. Bohr
 (D) Schrodinger
- Q.4** The heaviest particle is :
- (A) Meson (B) Neutron
 (C) Electron (D) Proton
- Q.5** The radius of atomic nucleus is of the order of
- (A) 10^{-12} m (B) 10^{-8} m
 (C) 10^{-15} m (D) 10^{-10} m
- Q.6** Which of the following are isoelectronic with one another ?
- (A) Na^+ and Ne
 (B) K^+ and O
 (C) Ne and O
 (D) Na^+ and K^+
- Q.7** The atomic weight of an element is 23 and atomic number is 11. The number of protons, electrons and neutrons respectively present in the atom of the element are :
- (A) 11, 11, 12 (B) 12, 12, 11
 (C) 11, 12, 11 (D) 12, 11, 12
- Q.8** Which of the following atoms has the largest atomic radius ?
- (A) ${}^3\text{Li}$ (B) ${}^5\text{B}$
 (C) ${}^7\text{N}$ (D) ${}^8\text{F}$
- Q.9** An isotone of ${}^{77}_{33}\text{Ge}$ is
- (A) ${}^{77}_{32}\text{Ge}$ (B) ${}^{77}_{33}\text{As}$
 (C) ${}^{77}_{34}\text{Se}$ (D) ${}^{76}_{34}\text{Se}$

CHEMISTRY FOUNDATION (CLASS TEST 1/6) (ATOMIC STRUCTURE) ANSWER KEY

Name : Roll No. :

	A	B	C	D		A	B	C	D		A	B	C	D
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ANSWER KEY

Que.	1	2	3	4	5	6	7	8	9
Ans.	D	D	B	B	C	A	A	A	B

SOLUTIONS

Sol.1 (D)

α -particles pass through because most part of the atom is empty.

Sol.2 (D) Proton is ionized hydrogen.**Sol.3 (B)**

Davisson and Gerner.

Sol.4 (B)

Mass of Neutron is slightly greater than proton.

Sol.5 (C)

Radius of atomic nucleus = 10^{-15} m.

Sol.6 (A)

No. of electrons in Na^+ = No. of electrons in Ne = 10.

Sol.7 (A)

\therefore Atomic number = 11

\therefore No. of protons (p) = No. of electrons (e^-) = 11

\therefore Atomic weight = 23

\therefore No. of neutrons = $23 - 11 = 12$.

Sol.8 (A)

Atomic size decreases along the period.

Sol.9 (B)

Isotones have same number of neutrons (= mass number – atomic number)