ARJUNA (NEET)

STRUCTURE OF ATOM

DPP-2

1. The charge to mass ratio of electron was found to be
(A) 1.6022×10^{-19} C kg^{-1}
(B) 1.925×10^{12} C kg^{-1}
(C) 1.758×10^{11} C kg^{-1}
(D) 1.869×10^{13} C kg^{-1}

2. The ratio of mass of an electron to that of the mass of hydrogen atom is
(A) 1:3871 (B) 1:1837
(C) 1:1296 (D) 1:3781

3. The radius of nucleus is approximately _____times smaller than the radius of atom.
(A) 1,00,000 (B) 5,000
(C) 10,000 (D) 200

4. When α-rays strike a thin gold foil then
(A) Most of the α-rays do not pass through the gold foil
(B) Most of the α-rays get deflected back
(C) Most of the α-rays get deflected through small angles
(D) Most of the α-rays pass through without any deviation

5. The general representation of the symbol of elements 'X' is (Z = Atomic number, A = Mass number)
(A) ${}^{A}_{X}Z$ (B) ${}^{A}_{Z}X$
(C) ${}_{A+1}X^{z+1}$ (D) ${}_{x}A^{Z}$

6. Isotopes have
(A) Same number of protons
(B) Same number of neutrons
(C) Different number of electrons
(D) Different atomic numbers

7. The number of neutrons present in deuterium is
(A) 0 (B) 1
(C) 2 (D) 3

8. Metal of which foil was used in Rutherford experiment?
(A) Silver (B) Gold
(C) Platinum (D) Iron

9. Calculate the number of protons, neutrons and electrons in ${}^{39}_{19}K$.

10. Calculation the number of electrons, protons and neutrons in (i) phosphorus atom (ii) phosphate ion.
Mass numbers: P = 31, O = 16
Atomic numbers: P = 15, O = 8

ANSWERS KEY

1. **(C)**
2. **(B)**
3. **(A)**
4. **(D)**
5. **(B)**
6. **(A)**
7. **(B)**
8. **(B)**
9. **Proton → 19**
   Neutron → 20
   Electron → 19
10. **(i)**
    Phosphorous atom
    Number of electron =
    Number of protons =
    Atomic number = 15

    Number of neutrons = Mass number – Atomic number

    = 31 – 15 = 16.

    (ii)
    Phosphate ion
    Number of electrons = 15 + 4 × 8 + 3 = 50
    Number of protons = 15 + 4 × 8 = 47
    Number of neutrons = 16 + 4 × 8 = 47

Note - If you have any query/issue

Mail us at support@physicswallah.org