

## STRUCTURE OF THE ATOM

**Question (1):** Almost the entire mass of an atom is concentrated in the\_\_\_\_\_.

1. proton
2. electrons
3. nucleus
4. neutrons

**Ans: 3**

**Question (2):** Electron was discovered by\_\_\_\_\_.

1. Chadwick
2. Thomson
3. Goldstein
4. Bohr

**Ans: 2**

**Question (3):** An atom has a mass number of 23 and atomic number 11. The number of protons are\_\_\_\_\_.

1. 11
2. 12
3. 23
4. 44

**Ans: 1**

**Question (4):** The mass of the atom is determined by\_\_\_\_\_.

1. neutrons
2. neutron and proton
3. electron
4. electron and neutron

**Ans: 2**

**Question (5):** The K, L and M shells of an atom are full. Its atomic number is\_\_\_\_\_.

1. 18
2. 20
3. 10
4. 12

**Ans: 1**

**Question (6):** Which of the air pressures is appropriate for the production of cathode rays in the discharge tube?

1. 1 cm Hg
2. 1 mm Hg
3. 0.001 cm Hg
4. 0.001 mm Hg

**Ans: 4**

**Question (7):** Cathode rays are deflected towards\_\_\_\_\_.

1. positive electrode
2. negative electrode
3. both electrodes
4. none of the electrodes

**Ans: 1**

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**Question (8):** The absolute charge of an electron is\_\_\_\_\_.

1.  $-1.6 \times 10^{-19}C$
2.  $+1.6 \times 10^{-19}C$
3.  $1.6 \times 10^{-19}C$
4.  $16 \times 10^{-19}C$

**Ans: 1**

**Question (9):** The proton is heavier than an electron by\_\_\_\_\_.

1. 1850 times
2. 1840 times
3. 1000 times
4. 100 times

**Ans: 2**

**Question (10):** Carbon-12 atom has\_\_\_\_\_.

1. 6 electrons, 6 protons, 6 neutrons
2. 6 electrons, 12 protons, 6 neutrons
3. 12 electrons, 6 protons, 6 neutrons
4. 18 electrons, 6 protons and 6 neutrons

**Ans: 1**

**Question (11):** Chadwick got the Nobel Prize for the discovery of \_\_\_\_\_.

1. protons
2. neutrons
3. electrons
4. mesons

**Ans: 2**

**Question (12):** Mass number is equal to the\_\_\_\_\_.

1. number of protons + number of electrons
2. number of protons + number of neutrons
3. number of neutrons + number of electrons
4. number of electrons

**Ans: 2**

**Question (13):** The element X has 2 valence electrons. It is a\_\_\_\_\_.

1. metal
2. non-metal
3. metalloid
4. gas

**Ans: 1**

**Question (14):** The volume of the nucleus of an atom when compared to the extra nuclear part is\_\_\_\_\_.

1. bigger
2. smaller
3. same size
4. unpredictable

**Ans: 2**

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**Question (15):** In Rutherford's alpha-scattering experiment, a foil of element that was used \_\_\_\_\_.

1. gold
2. silver
3. aluminum
4. magnesium

**Ans: 1**

**Question (16):** An element has an electronic configuration of 2, 8, 7. Its valency is

1. 1
2. 7
3. 17
4. 8

**Ans: 1**

**Question (17):** The other name of  ${}^1_1\text{H}$  is \_\_\_\_\_

1. protium
2. tritium
3. deuterium
4. proton

**Ans: 1**

**Question (18):** During a chemical reaction, atomic number \_\_\_\_\_.

1. changes
2. remains same
3. changes and then is restored
4. changes alternately

**Ans: 2**

**Question (19):** The fixed circular paths around the nucleus are called \_\_\_\_\_.

1. orbits
2. orbitals
3. nucleons
4. mesons

**Ans: 1**

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