

CHAPTER
1**BASIC CONCEPTS****MULTIPLE CHOICE QUESTIONS**

- The mass of one mole of electron is:**
(a) 1.008 mg (b) 0.184 mg
(c) 0.54 mg (d) 0.054 mg
- 27 g of Al will react with how much mass of O₂ to produce Al₂O₃:**
(a) 8 g of oxygen (b) 16 g of oxygen
(c) 32 g of oxygen (d) 24 g of oxygen
- The number of moles of NO₂ which contains 16 g of oxygen:**
(a) 0.25 (b) 0.50
(c) 1.0 (d) 1.50
- The volume occupied by 2.0 g of Ne at STP:**
(a) 2.24 dm³ (b) 22.4 dm³
(c) 1.12 dm³ (d) 112 cm³
- A sample in the ionization chamber of mass spectrometer is ionized by:**
(a) Electrons (b) Proton
(c) Neutron (d) Nucleus
- Which one of the following pair is not iso-electronic:**
(a) CO, N₂ (b) Na⁺, Ne
(c) Ca, Ar (d) K⁺, Ar
- Which one of the following is not a molecular ion:**
(a) N₂⁺ (b) CH₄⁺
(c) C₆H₈⁺ (d) NH₄⁺

8. **180 g of glucose contains number of hydrogen atoms:**
(a) 3.6×10^{23} (b) 6.0×10^{23}
(c) 7.2×10^{23} (d) 7.2×10^{24}
9. **Who first of all determined atomic masses of elements:**
(a) J. Berzelius (b) J.J. Thomson
(c) John Dalton (d) Democritus
10. **The mass of H-atom is 1.008 a.m.u. Its mass in kg should be _____:**
(a) $1.008 \times 1.661 \times 10^{-23}$ kg (b) $\frac{1.008}{1.661 \times 10^{-27}}$ kg
(c) $1.008 \times 1.661 \times 10^{-27}$ kg (d) 1.661×10^{-27} kg
11. **The atomicity of one molecule of Haemoglobin is:**
(a) 10,000 (b) 68,000
(c) 17,000 (d) 100,000
12. **Formation of uninegative ion is:**
(a) Exothermic (b) Endothermic
(c) Both (a) & (b) (d) None of these
13. **Which of the following elements has nine isotopes:**
(a) Ca (b) Pd
(c) Cd (d) Sn
14. **Which of the following will form single peak in mass spectrograph:**
(a) Iodine (b) Arsenic
(c) Fluorine (d) All of these
15. **Which one of the following contains maximum no. of molecules:**
(a) 16.0 g of CH_4 (b) 16.0 g of O_2
(c) 16.0 g of SO_2 (d) 16.0 g of H_2O
16. **Atoms of all the elements always contain in nucleus:**
(a) Proton (b) Proton and neutron
(c) Neutron (d) Electron and neutron
17. **Actual yield of a chemical reaction is always less than theoretical yield because:**

- (a) $\text{Mg}(\text{ClO}_4)_2$ (b) 50% KOH
(c) Lime water (d) Dilute NaOH
27. Which one of the following properties is always in whole number:
(a) Atomic mass (b) Atomic radius
(c) Atomic volume (d) Atomic number
28. What is the mass of one mole of Iodine:
(a) 53 g (b) 74 g
(c) 127 g (d) 254 g
29. 0.5 moles of H_2SO_4 contains "X" moles of oxygen atoms "X" is:
(a) 0.5 (b) 1.0
(c) 2.0 (d) 4.0
30. What will weigh more:
(a) 2 mole N_2 (b) 1 mole O_3
(c) 2 mole O_2 (d) 2 mole CO_2
31. The number of electrons in one mole of H_2 is:
(a) 6.02×10^{23} (b) 3.01×10^{23}
(c) 12.04×10^{23} (d) Indefinite
32. CO^+ is an example of:
(a) Free radical (b) Cationic molecular ion
(c) Anionic molecular ion (d) Stable molecule
33. Relative atomic mass is the mass of an atom of an element as compared to the mass of one atom of:
(a) Oxygen (b) Hydrogen
(c) Nitrogen (d) Carbon
34. Percentage of oxygen in H_2O is:
(a) 80% (b) 88.8%
(c) 8.8% (d) 9.8%
35. Large no of isotopes are known for the elements whose masses are multiple of:
(a) Two (b) Four

- (c) Six (d) Eight
36. The least no of molecules is present in 30 g of:
 (a) N_2O (b) NO
 (c) NO_2 (d) N_2O_3
37. How many atoms of carbon are present in 18 g of glucose $\text{C}_6\text{H}_{12}\text{O}_6$:
 (a) 6.02×10^{22} (b) 3.6×10^{23}
 (c) 6.0×10^{23} (d) 3.6×10^{24}
38. The relative atomic mass of oxygen according to C –12.000 a.m.u standard is:
 (a) Less than 16 (b) More than 16
 (c) 16 only (d) No relationship
39. An organic compound contains 2% of sulphur. The molar mass of compound is:
 (a) 200 (b) 800
 (c) 1600 (d) 3200
40. The mass of 0.5 mole of Aluminium is:
 (a) 13 g (b) 13.5 g
 (c) 14 g (d) 27 g

answers

1.	(c)	2.	(d)	3.	(b)	4.	(a)	5.	(a)
6.	(c)	7.	(d)	8.	(d)	9.	(a)	10.	(c)
11.	(a)	12.	(a)	13.	(c)	14.	(d)	15.	(a)
16.	(a)	17.	(d)	18.	(a)	19.	(c)	20.	(c)
21.	(d)	22.	(a)	23.	(c)	24.	(b)	25.	(b)
26.	(b)	27.	(d)	28.	(d)	29.	(c)	30.	(d)
31.	(c)	32.	(b)	33.	(d)	34.	(b)	35.	(b)
36.	(d)	37.	(b)	38.	(a)	39.	(c)	40.	(b)