



Class 9 Science | Atomic Foundations Of Matter

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

1. In a closed vessel, 12 g carbon reacts fully with 32 g oxygen. Product mass is:

- A. 44 g B. 384 g C. 12 g D. 20 g

2. Water always contains hydrogen and oxygen in mass ratio 1:8. This illustrates:

- A. Constant proportions
B. Conservation of molecule number
C. Conservation of volume
D. Variable composition

3. Which is a molecule of an element?

- A. O_2 B. CO_2 C. H_2O D. NH_3

4. Which species is a positively charged ion?

- A. Mg^{2+} B. SO_4^{2-} C. O^{2-} D. Cl^-

5. The formula from Al^{3+} and O^{2-} is:

- A. AlO B. AlO_2 C. Al_2O_3 D. Al_3O_2

6. The formula of calcium hydroxide is:

- A. $CaOH$ B. Ca_2OH C. CaO_2H D. $Ca(OH)_2$

7. The formula of ammonium sulfate is:

- A. NH_4SO_4 B. $NH_4(SO_4)_2$
C. $(NH_4)SO_3$ D. $(NH_4)_2SO_4$

8. The molecular mass of CO_2 (C=12, O=16) is:

- A. 48 u B. 44 u C. 28 u D. 32 u

9. Formula-unit mass of $NaCl$ (Na=23, Cl=35.5) is:

- A. 81.5 u B. 58.5 u C. 12.5 u D. 35.5 u

10. How many atoms are present in one H_2SO_4 molecule?

- A. 7 B. 6 C. 3 D. 4

11. In an ionic solid, current does not flow readily because:

- A. It contains no charged particles
B. Electrons vanish
C. Ions cannot move freely
D. All atoms are gases

12. Molten sodium chloride conducts because it contains:

- A. Only protons
B. Mobile neutral molecules only
C. Mobile ions
D. No particles

13. A covalent bond is formed by:

- A. Transferring neutrons
B. Sharing electron pairs
C. Destroying electrons
D. Sharing protons

14. The formula of magnesium nitride, using Mg^{2+} and N^{3-} , is:

- A. Mg_2N_3 B. MgN_3 C. Mg_3N_2 D. MgN

15. A pure sample of CO_2 contains 6 g carbon. Oxygen mass is:

- A. 12 g B. 8 g C. 16 g D. 32 g

ANSWER KEY — check after completing all 15 questions

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

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper