

Class-9
Chemistry
Revision work sheet
Chapter-6
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Chapter- 6 (Concept of mole and chemical counting)

1. What is the molar volume of 16g oxygen at STP?
 - a) 5.6 L
 - b) 22.4 L
 - c) 11.2 L
 - d) 33.6 L
2. If 0.1 mole solute get dissolved in one liter solution, then what will be the concentration of the solution?
 - a) 0.1 M
 - b) 0.01 M
 - c) 1 M
 - d) 0.5 M
3. What is the concentration in molarity of decimolar solution?
 - a) 0.7 molar
 - b) 0.1 molar
 - c) 0.5 M
 - d) 0.01 M
4. If water is used as a solvent the solution produced is called—
 - a) Aqueous solution
 - b) Alkaline solution
 - c) Dilute solution
 - d) Concentrated solution
5. 1 mole H atom equals to –
 - i) 1.008g H atoms
 - ii) 6.02×10^{23} H atoms
 - iii) 22.4 L H atoms

Which one is correct?

 - a) i & ii
 - b) ii & iii
 - c) i & iii
 - d) i, ii & iii
6. How many liters of solution will be produced from 100g limestone with molarity 0.5 M?
 - a) 1 L
 - b) 4 L
 - c) 2 L
 - d) 10 L
7. What is the volume of 44g CO₂ and 32g O₂?
 - a) Volume of CO₂ > volume of O₂
 - b) Volume of CO₂ < volume of O₂
 - c) Volume of CO₂ = volume of O₂
 - d) Volume of CO₂ ≠ volume of O₂
8. To form CO₂ molecule, how much oxygen will react with 3g carbon?
 - a) 8g
 - b) 32g
 - c) 12g
 - d) 44g
9. How many ions are present in 1 mole of Na⁺ ion?
 - a) $2 \times 6.02 \times 10^{23}$
 - b) 3.1416

c) 6.02×10^{23}

d) 6.623×10^{11}

Read the following stem and answer the question no. 10 and 11:

At STP volume of 10g of X gas is 112L.

10. Which one is the X gas?



11. The gas X —

i) Molecular mass is 2

iii) Atomic mass is 2

ii) At STP molar volume is 22.4 L

Which one is correct?

a) i & ii

c) i & iii

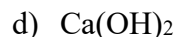
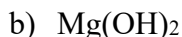
b) ii & iii

d) i, ii & iii

Read the following stem and answer the question no. 12 and 13:

In a 200 mL container 10.6g X is taken and water is added. When the volume of the solution is 200 mL, semimolar solution is produced.

12. What is the compound X?



13. What will be the volume of the solution if 20g X dissolves in 0.75M solution?

a) 200 mL

c) 100 mL

b) 500 mL

d) 250 mL

14. How many molecules are present in 24.5g H_2SO_4 ?

a) 12.5×10^{22}

c) 1.505×10^{23}

b) 1.15×10^{23}

d) 1.198×10^{23}

15. The mass of 3.01×10^{23} atoms of carbon is --

a) 6g

c) 12g

b) 6.22g

d) 12.22g

Creative question:

1) From the empirical formula only the ratio of the elements in a compound can be determined. But, from the molecular formula actual number of the elements in a compound can be determined.

a) What is meant by semimolar and decimolar solution?

b) Prepare 2L 0.3M NaCl solution.

c) In a compound composition of oxygen is 88.89% & composition of hydrogen is 11.11%. Determine the empirical formula of that compound.

d) In a compound composition of carbon & hydrogen are 92.31% & 7.69% respectively. Molar mass of that compound is 78. Determine the molecular formula of that compound.

