Chapter 5 – MOLE CONCEPT AND STOICHIOMETRY Reduced syllabus)

1. One atomic mass unit is how much part the mass of C- 12 atoms?

   a) $\frac{1}{4}$ b) $\frac{1}{12}$ c) $\frac{1}{8}$ d) $\frac{1}{16}$

2. A gas cylinder of capacity of 20 dm^3 is filled with gas X, the mass of which is 10g. When the same cylinder is filled with hydrogen gas at the same cylinder is filled with hydrogen gas at the same temperature and pressure the mass of the hydrogen is 2g, hence the relative molecular mass of the gas is

   a) 5 b) 10 c) 15 d) 20

3. The element which has two atoms in its molecule is

   a) phosphorus b) oxygen c) ozone d) helium

4. The vapour density of carbon dioxide (C = 12 and O =16) is

   a) 32 b) 16 c) 44 d) 22

5. The empirical formula of butane is

   a) C_2H_{15} b) C_2H_5 c) C_4H_{12} d) C_3H_8

6. What will be the empirical formula of CH_3COOH?

   a) CHO_2 b) C_2HO c) CH_2O d) $C_2H_2O_2$

7. The 'n' of CBr_3 molecule is 2. Then, what is the molecular formula?

   a) C_3Br_8 b) C_3Br_9 c) C_2Br_6 d) C_2Br_5

8. If the empirical formula of an organic compound is CH_2O, then is molecular formula can be

   a) $C_2H_2O_2$ b) C_2H_4O c) C_3H_6O d) $C_6H_{12}O_6$

HOTS

1. Two oxides of a metal contains 50% and 40% metal (M), respectively. If the formula of first oxide is MO_2, the formula of second oxide will be

   a) MO_2 b) MO_3 c) M_2O d) M_2O_5

2. The vapour density of a gas A is four times that of B. If molecular mass of B is M, then molecular mass of A is

   a) M b) 4M c) $\frac{M}{4}$ d) 2M

3. 60g of a compound on analysis gave 24 g C, 4 g H and 32 g O. The empirical formula of the compound is

   a) $C_2H_4O_2$ b) $C_2H_2O_2$ c) CH_2O_2 d) CH_2O