ARJUNA (NEET)

Some Basic Concepts of Chemistry

DPP-5

1. 8g H_2 and 32g O_2 is allowed to react to form water then which of the following statement is correct?
   (A) O_2 is limiting reagent
   (B) O_2 is reagent in excess
   (C) H_2 is limiting reagent
   (D) 40g water is formed

2. Equal volume of N_2 and H_2 react to form ammonia under suitable condition then the limiting reagent is
   (A) H_2
   (B) N_2
   (C) NH_3
   (D) No one reactant is limiting reagent

3. How many grams of calcium oxide is obtained on heating 100g of $CaCO_3(s)$?
   (A) 50g (B) 40g
   (C) 56g (D) 44g

4. The volume of O_2 at STP required for the complete combustion of 4g CH_4 is
   (A) 5.6 litre (B) 2.88 litre
   (C) 22.4 litre (D) 11.2 litre

5. 0.9g Al reacts with dil. HCl to give H2. The volume of H2 evolved at STP is (Atomic weight of Al = 27)
   (A) 1.12 litre (B) 2.24 litre
   (C) 3.33 litre (D) 4.44 litre

6. Which of the following statement is correct?
   (A) 28g CO contains 12g carbon and 16g oxygen
   (B) One mole of CO reacts completely with half mole of O_2 to form CO_2
   (C) N_2 and CO have same molar mass
   (D) All of these

7. The volume CO_2 evolved at STP on heating 50g $CaCO_3$
   (A) 11.2 litre (B) 22.4 litre
   (C) 5.6 litre (D) 24.4 litre

8. Limiting reagent in a chemical reaction is that reactant which
   (A) Left some amount unreacted after the completion of reaction
   (B) Reacts completely in the reaction
   (C) Does not react in the reaction
   (D) All of these

9. Which is the mass of glucose required to produce 44g of CO_2, on complete combustion?
   (A) 30g (B) 45g
   (C) 60g (D) 22g

10. 10g of MnO_2 on reaction with HCl forms 2.24 L of $Cl_2(g)$ at NTP, the percentage impurity of MnO_2 is
    $MnO_2 + 4HCl \longrightarrow MnCl_2 + Cl_2 + 2H_2O$
    (A) 87% (B) 25%
    (C) 33.3% (D) 13%

ANSWERS KEY

1. (A)
2. (A)
3. (C)
4. (D)
5. (A)
6. (D)
7. (A)
8. (B)
9. (A)
10. (D)

Note - If you have any query/issue

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