CHM 120

Exam 2: Chapters 5,6,7,8

Exam 2

Total Points: 60

PART 1: Multiple Choice questions: Q 1-24. (2 point each)

1. Chemical reactions (equations) show the following
    a. Reactants
    b. Products
    c. Physical state of each (gas or liquid or solid)
    d. All of the above
2. The following is true for a mole
    a. It is also known as Avagadro's number
    b. It contains $6.022 * 10^{23}$ molecules
    c. It contains mass equivalent to molecular weight
    d. All of the above are true
3. In balancing chemical equations, the coefficients are used to
    a. Show number of moles
    b. Show volume of each in liters
    c. Show amount of each in grams
    d. Show temperature at which the substance is stable
4. $2H_2 + O_2 \longrightarrow 2H_2O$ means that
    a. 2 grams of H_2 g and 1 gram of O_2 gas combine to form 2 grams of water. b. 2 moles of H_2 g and 1 mole of O_2 gas combine to form 2 moles of water.
    c. 2 grams of H_2 g and 1 gram of O_2 gas combine to form 2 moles of water.
    d. 2 molecules of H_2 g and 1 molecule of O_2 gas combine to form 2 molecules of water.
5. $2H_2 + O_2 \longrightarrow 2H_2O$. In this equation, correct method to calculate molecular mass of water is
    a. 2[2(mass of hydrogen) + mass of oxygen]
    b. 2(mass of hydrogen gas) + mass of oxygen gas c. 2(mass of hydrogen) + mass of oxygen

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6. One mole of O2 gas contains_____number of molecules.
    a. 32 Grams
    b. 1
    c. $6.02 * 10^{23}$
    d. None of the above
7. Concentration of a solution is
    a. Amount of solute dissolved in given amount of solvent
    b. Amount of solute dissolved in 1 L of solvent
    c. 1 g of solute dissolved in given amount of solvent
    d. A mass equivalent to Molecular weight of solute dissolved in given amount of solvent
8. The following is a product of reaction of a nonmetal oxide with water to make acid.
    a. C6H12O6
    b. H2CO3
    c. NH4OH
    d. CO2
9. If CaO reacts with water, the following product will be made.
    a. Ca
    b. CaOH
    c. Ca(OH)2
    d. H2Ca
10. The following will be made when KOH reacts with HCl.
    a. KH
    b. KCl
    c. H2O
    d. B & c are true
11. "The neutralization reaction is a quantitative reaction, where amount of acid needed to neutralize the base can be accurately calculated." This statement is
    a. True
    b. False
12. The pH scale represents the
    a. acidity of a solution
    b. whether the acid is strong acid or weak

Commented [SM1]: I will accept a or b as correct answer