ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

SOLUTION-04(CLASS-11)

TOPIC- SOME BASIC CONCEPT OF CHEMISTRY

SUBTOPIC-LAWS OF CHEMICAL COMBINATION

SUBJECT – CHEMISTRY **F.M. - 15**

DURATION – 30 mins **DATE -18.06.20**

1.1 **The law of definite composition was proposed by-**

a) Lomonosov b) Antoine Lavoisier c) Joseph Proust d) Dalton

Ans. c

1.2 **_____ law of combining volumes states that "Whenever gases combine, they do so in simple ratio by volumes" -**

a) Avogadro's b) Gay Lussac's c) Dalton's d) Thomson's

Ans. b

1.3 **The sum of the masses of reactants and products is equal in any physical or chemical reaction. This is in accordance with-**

a) Law of multiple proportion b) Law of definite composition c) Law of conservation of mass d) Law of reciprocal proportion

Ans. c

1.4 **Pure water can be obtained from various sources, but it always contains hydrogen and oxygen, combined in a ratio of 1:8 by weight. This is an example of –**

a) Law of conservation of mass b) Avogadro's law c) Law of definite composition d) Gay Lussac's law

Ans. c

1.5 **In SO_2 and SO_3, the ratio of the masses of oxygen which combine with a fixed mass of Sulphur is 2:3. This is an example of the law of-**

a) Constant proportion b) Multiple proportion c) Reciprocal proportion d) Gay Lussac

Ans. b

1.6 **Among the following pairs of compounds, the one that illustrates the law of multiple proportions is**-

a) NH_3 and NCl_3 b) H_2S and SO_2 b) CuO and Cu_2O d) CS_2 and $FeSO_4$

Ans.c

1.7 **In the chemical reaction,the ratio of volumes of nitrogen, hydrogen and ammonia is 1 :3: 2. These figures illustrate the law of-**

a) Law of conservation of mass b) Law of constant composition c) Law of multiple proportion d) law of constant volume

Ans. d

1.8 **The law of multiple proportions is illustrated by-**

a) Carbon monoxide and carbon dioxide b) Potassium bromide and potassium chloride c) Ordinary water and heavy water d) Calcium hydroxide and barium hydroxide.

Ans. a

1.9 **Two elements, X (Atomic mass 16) and Y (Atomic mass 14) combine to form compounds A, B and C. The ratio of different masses of Y which combine with fixed mass of X in A, B and C is 1:3:5. If 32 parts by mass of X combine with 84 parts by mass of Y in B, then in C, 16 parts by mass of X will combine with-**

(A) 14 parts by mass of Y (B) 42 parts by mass of Y (C) 70 parts by mass of Y (D) 82 parts by mass of Y

Ans. c

1.10**The volume of oxygen required for complete combustion of 0.25 cm^3 of CH_4 at S.T.P is-**

(A) 0.25 cm^3 (B) 0.5 cm^3 (C) 0.75 cm^3 (D) 1 cm^3

Ans. b

1.11**Hydrogen and oxygen combine to form H_2O_2 and H_2O containing 5.93% and 11.29% of hydrogen respectively. The data illustrates-**

(A) Law of conservation of mass (B) Law of constant proportions (C) Law of reciprocal proportions (D) Law of multiple proportions

Ans. d

1.12**An unbalanced chemical reaction represents a violation of which law?**

a) Law of conservation of mass b) Law of constant composition c) Law of multiple proportion (d) law of reciprocal proportion

Ans. a

1.13 **How many litres of ammonia will be formed when 2 L of N_2 and 2 L of H_2 are allowed to react?**

(A) 0.665 (B) 1.0 (C) 4.00 (D) 1.33

Ans. d

1.14 **1.0 g of an oxide of A contained 0.5 g of A. 4.0 g of another oxide of A contained 1.6 g of A. The data indicate the law of – d**

(A) Reciprocal proportions (B) Constant proportions (C) Conservation of energy (D) Multiple proportions

Ans. d

1.15**One unit volume of N_2 reacts with 3 unit volumes of H_2 to form 2 unit volumes of NH_3. This is in accordance with- d**

a) Avogadro's law b) Gay Lussac's law c) Law of conservation of mass d) Law of chemical combination

Ans. d

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