

Name:

Class: IX

Time: 1 Hour

Date: 15-11-2015

Course: BLITZ

SCIENCE

1.	Identify the correct symbol of gold: (A) Go (B) Ge (C) Gd (D) Au	2
2.	The combining capacity of an element is called (A)Valency (B) Atomicity (C) Atomic number (D) Valence electrons	2
3.	Which is not represented by 1mole of Nitrogen gas? (A) 6.023×10^{23} molecules of N_2 (B) 12.046×10^{23} atoms of N_2 (C) 6.023×10^{23} atoms of N_2 (D) 28g of N_2	3
4.	The balancing of chemical equations is in accordance with: (A) Law of combining volumes (B) Law of constant proportions (C) Law of conservation of mass (D) Both (B) and (C)	2
5.	16g of S_8 contains: (A) 6.023×10^{23} Atoms of S (B) $6.023 \times 10^{23}/8$ atoms of S (C) $6.023 \times 10^{23}/2$ atoms of S (D) $6.023 \times 10^{23}/16$ atoms of S	3
6.	(a) When 10 g of sulphur is burnt in 10 g of oxygen 20 g of sulphur dioxide is produced? Find the Mass of sulphur dioxide formed on burning 20g of sulphur in 30 g of oxygen. Justify your answer by stating the law which governs your answer. (b) State the postulates of Dalton's atomic theory which can explain the above law.	3+2
7.	A flask contains 4.4g of CO_2 gas calculate : (a) How many moles of CO_2 gas does it contain? (b) How many molecules of CO_2 gas are present in the sample? (c) How many atoms of oxygen are present in the given sample?	1+1+2
8.	An element M burns in oxygen to form its oxide having the formula 'MO'. Find the valency of the element. Write the formulae of its sulphate and bromide.	4
9.	(a) Define molar mass. What are its units? (b) write the names of compounds represented by the following formulas; (i) K_2CO_3 (ii) Na_2SO_4 (iii) $Ca(HCO_3)_2$ (iv) H_2S (v) N_2O_3	4

10.	(a) What are polyatomic ions? (b) Write the formulae and names of the compounds formed by combination of (i) Fe^{3+} and SO_4^{2-} (ii) NH_4^{1+} and CO_3^{2-}	2+3
11.	A sample of ethane (C_2H_6) gas has the same mass as 1.5×10^{20} molecules of methane (CH_4). How many C_2H_6 molecules does the sample of the gas contain?	5
12.	(a) Define one mole. (b) Calculate number of moles in 36 gram of water (atomic mass of H = 1 and O = 16). (c) Write the chemical formulae of the following compounds : (i) Zinc phosphate (ii) Sodium chloride (iii) Magnesium hydroxide	1+1+3
13.	What is formula unit mass of a substance? Calculate formula unit mass of potassium carbonate. Calculate the number of potassium ions present in 0.069 gram of potassium carbonate. Given the atomic masses of K, C and O are 39u, 12u, and 16u respectively and Avogadro number is 6.02×10^{23} .	6