D.V.S PUBLIC SCHOOL

ASSIGNMENT CH-3

Class 09 - Science

Time Allowed: 30 minutes   **Maximum Marks: 20**

1.   a. Calculate the relative molecular mass of water (H_2O).   **[2]**

    b. Calculate the molecular mass of HNO_3.

2.   In a reaction, 5.3 g of sodium carbonate reacted with 6 g of acetic acid. The products were 2.2 g of carbon   **[2]**
dioxide, 0.9 g water and 8.2 g of sodium acetic. Show that these observations are in agreement with the law of
conservation of mass.
sodium carbonate + acetic acid $\rightarrow$ sodium acetic + carbon dioxides + water

3.   Which postulate of Dalton's atomic theory is the result of the law of conservation of mass?   **[2]**

4.   Define the atomic mass unit.   **[2]**

5.   Write down the formulae of: **[2]**

  i. sodium oxide

  ii. Aluminium chloride

  iii. sodium Sulphide

  iv. magnesium hydroxide

6.   Write down the names of compounds represented by following formulae: **[3]**

  i. $Al_2(SO_4)_3$

  ii. $CaCl_2$

  iii. K_2SO_4

  iv. KNO_3

  v. $CaCO_3$

7.   Give the names of the elements present in the following compounds.   **[5]**

  a. Quick lime

  b. Hydrogen bromide

  c. Baking powder

  d. Potassium sulphate

8.   When 3.0 g of carbon is burnt in 8.00 g oxygen, 11.00 g of carbon dioxide is produced. What mass of carbon   **[2]**
dioxide will be formed when 3.00 g of carbon is burnt in 50.00 g of oxygen? Which law of chemical
combination will govern your answer?