SOME BASIC CONCEPTS OF CHEMISTRY

(111. Number of molecules in INIe of substance = $\frac{\text{fig] xhjk.}}{\text{CIA11.1}}$

(2). molallhe m) $\frac{\text{14°-r)f fin 0¦eS Cof \$010te}}{\text{Mass of solvent in Irg}}$

(3). !dumber of molecules in V litre of gas at 53.P. = $\frac{VN_A}{22A}$

(4). Number of gram atoms = $\frac{\text{Mg)}}{\text{GAM}}$ GP,M — gram atomic mass}

(5). Number of gram molecules = $\frac{\text{|Ar(g3}}{\text{Gram molecular mass}}$

{6}. Dilution formula – p_1A_1

Fo mixing two solutions of tile same substance

– + V_f)

Molarity can be directly calculated from % by mass lw{w} if density is known

Mole rity = .% x $\frac{\text{10 Yd}}{\text{GMfv1}}$

{711. Kass of 1 atom of element $\frac{\text{GAM}}{N_A}$

fall. Man of 1 molecule of substance $\frac{\text{M M}}{1.4.;}$ tivim –frividar mass)

(9). T(K) = T(aC) + 273_15

{W). Relative atomic mast – $\frac{\text{Mass of an atom of the element}}{\text{x Mass of an atom of carbon \{C-12)}}$

(11]. Number of molecules in n moles- of substance =ri

(14 Mass % of an element in a compound = $\frac{\text{Mass of that element in 1 mole of the compound}}{\text{Molar MASS of tFbe compourit}}$ icon

OA). Mass percent = $\frac{\text{of will/A°}}{\text{Mass of solution}}$ ...I N

{14). X_0 = nrholality x
1 - ; ION) where - mass of solvent

Molarity NI) $\frac{\text{No\_ of of solute}}{\text{Volume of solution in litres}}$ mole /L

lIE). Avogadro's No_ N = 6_022 x

(131., F) = —ICC} +32
5

18). MolEcular mass = 2 x vapour clen6ity

{1.9). Mole fraction of A $\frac{\text{Na. of moles of A}}{\text{No. of males of solution}}$