

**THIRUVANANTHAPURAM EDUCATIONAL DISTRICT**

**CWX2  
(3)**

**CHAPTER 2 MODULE 3  
CHEMISTRY  
STANDARD X**

- 128 gm  $O_2$  = .....GMM (Atomic mass of oxygen=16)
- Find the molecular mass of the following compounds (Atomic mass of the elements are Na - 23, O- 16, H- 1, Ca- 40, C- 12, N- 14)
  - $NH_3$
  - $CaCO_3$
  - $NaOH$
- Find the pair (Atomic mass O-16, H-1, Ca-40, C-12)

36 g  $H_2O$

3 GMM

132 gm  $CO_2$

$3.011 \times 10^{23}$   
molecules

50 gm  $CaCO_3$

2 Mole

- Complete the Table

$$1 \text{ GMM} = 1 \text{ Mole} = 6.022 \times 10^{23} \text{ molecules}$$

Element/ Compound	Gram Molecular Mass	Mass in gram	No. of moles	No. of molecules
Hydrogen	2	6	3	$3 \times 6.022 \times 10^{23}$
Carbon di Oxide	44	-----	2	-----
Sulphuric acid	---	490	5	$5 \times 6.022 \times 10^{23}$
Calcium Carbonate	---	500	-----	$5 \times 6.022 \times 10^{23}$

5. Volume of 1 mole of any gas at STP = 22.4 L

Gas at STP	Gram Molecular Mass	Mass in gram	Moles	Volume at STP
CO <sub>2</sub>	44	220	5	5x22.4L
H <sub>2</sub>	2	-----	6	-----L
NH <sub>3</sub>	----	170	10	-----L
N <sub>2</sub>	-----	112	-----	4x22.4L

6 Complete the DIAGRAM

