



# Silent Bells



ഫസ്റ്റ്ബെൽ - അനുബന്ധ പഠനസഹായകസാമഗ്രി

Std :10

Subject : Chemistry

WorkSheet : Online class 11

Lesson & LO: Gas Laws and Mole concept – Questions Analysis



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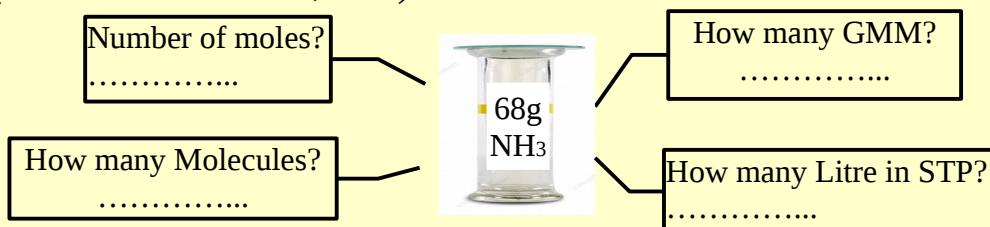


Date :22-07-2020

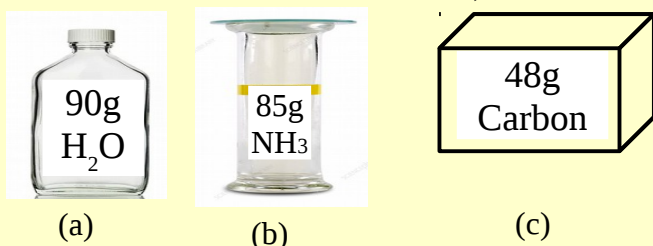


1. How many atoms are present in 16g of oxygen. Choose correct answer from bracket) ( $6.022 \times 10^{23}$ , 2 mole,  $3.011 \times 10^{23}$ )

2. 68g of Ammonia ( $\text{NH}_3$ ) is given. Complete the related information about this. (Atomic mass : N=14, H=1)



3. Find out the samples with same number of molecules. (Atomic mass : C=12, H=1, O=16)



4. Find the **molecular mass** of the following compounds. Atomic mass of the elements are given below.

(Na-23, O-16, H-1, Ca-40, C-12, N-14)

(a) NaOH

(b)  $\text{CaCO}_3$

(c)  $\text{NH}_3$

5. Find out the number of moles present in the following samples of compounds.

(a) 34g NH<sub>3</sub> (molecular mass:17)

(c) 7GMM H<sub>2</sub>O

(b) 11.2 Litre at STP CO<sub>2</sub>

(d) 4 x 6.022 x 10<sup>23</sup> SO<sub>2</sub>

6. Find the correct match (Atomic mass : O-16, H-1, Ca-40, C-12)

36 g  
H<sub>2</sub>O

3 GMM

132g  
CO<sub>2</sub>

3.011 x 10<sup>23</sup>  
molecules

50g  
CaCO<sub>3</sub>

2 mole

7. .
- (a) what is gram atomic mass(gram atom)?
- (b) Calculate the following.(Atomic mass: C=12, Na=23)
1. How many gram atoms present in 60g of Carbon?
  2. What is the mass of 2 gram atom of Na?

8. Molecular mass of SO<sub>2</sub> is 64. Then
- (a) Find the number of SO<sub>2</sub> molecules present in 32g SO<sub>2</sub>?
- (b) Find the total number of atoms present in this much SO<sub>2</sub>?
- (c) Find the number of moles present in 640g SO<sub>2</sub> ?

9. Find (a),(b) and (c) in the table.(O-16, H-1, Ca-40, C-12)

Given Sample	Number of moles	Volume at STP
54 g H <sub>2</sub> O	.....(a).....	
...(b)..... g CO <sub>2</sub>	2 mole	44.8 Litre
85 g NH <sub>3</sub>	5 mole	.....(c)..... Litre

10. Values of some gases are given. Match in correct way. One example is given for you.

Given mass	Number of moles	Volume at STP	Number of molecules
88g CO <sub>2</sub>	0.25 mole	44.8 Litre	3 x 6.022 x 10 <sup>23</sup>
3GMM NH <sub>3</sub>	2 mole	89.4 Litre	$\frac{1}{4}$ x 6.022 x 10 <sup>23</sup>
8g O <sub>2</sub>	4 mole	67.2 Litre	2 x 6.022 x 10 <sup>23</sup>
112g N <sub>2</sub>	3 mole	5.6 Litre	4 x 6.022 x 10 <sup>23</sup>