



INDIAN SCHOOL DARSAIT DEPARTMENT OF CHEMISTRY

Work sheet -Atoms and molecules-II	Date of Worksheet : 21.11.2017	
Resource Person: Mrs Sandhya Jitheesh		
Name of the Student : _____	Class & Division : IX-----	Roll Number : ___

- 1 How many moles are there in 12.044×10^{23} oxygen molecules?
- 2 How many moles are 3.6 g of water?
- 3 What is the number of molecules in 1.5 moles of ammonia? [N- 14 , H- 1] Ammonia-NH₃
- 4 Calculate the number of molecules in 5 g of nitrogen gas.
- 5 How many moles of calcium carbonate are present in 10 g of the substance?
[Atomic mass of Ca- 40 , C- 12 and O- 16]
- 6 Which contain more molecules? 4 g of methane (CH₄) or 4 g of oxygen.
- 7 If sulphur exists as S₈ molecule, calculate the number of moles in 100 g of sulphur?
- 8 Calculate the number of moles present in
a. 60 g of calcium b. 3.011×10^{23} number of oxygen atoms
- 9 What is the mass of
a. 3 moles of nitrogen atoms b. 0.5 moles of oxygen atoms
- 10 An element X forms an oxide with formula X₂O₃
a. State the valency of X.
b. Write the formula of
 i. Chloride of X ii. Sulphate of X
- 11 Calculate the number of moles in
a. 3.011×10^{23} atoms of carbon b. 46 g of sodium atoms
- 12 The mass of one molecule of a substance is 4.65×10^{-23} g. What is the molecular mass of the substance? What could be this substance?