



## NEET 2023 – Chemistry NCERT Based QB

### Mole Concept NCERT Exercise

- Q.1 What will be the molarity of a solution, which contains 5.85 g of NaCl(s) per 500 mL?  
 (1) 4 mol L<sup>-1</sup>                      (2) 20 mol L<sup>-1</sup>  
 (3) 0.2 mol L<sup>-1</sup>                    (4) 2 mol L<sup>-1</sup>
- Q.2 If 500 mL of a 5M solution is diluted to 1500 mL, what will be the molarity of the solution obtained?  
 (1) 1.5 M                              (2) 1.66 M  
 (3) 0.017 M                          (4) 1.59 M
- Q.3 The number of atoms present in one mole of an element is equal to Avogadro number. Which of the following element contains the greatest number of atoms?  
 (1) 4g He                              (2) 46g Na  
 (3) 0.40g Ca                          (4) 12g He
- Q.4 If the concentration of glucose (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>) in blood is 0.9 g L<sup>-1</sup>, what will be the molarity of glucose in blood?  
 (1) 5M                                  (2) 50 M  
 (3) 0.005 M                          (4) 0.5 M
- Q.5 What will be the molality of the solution containing 18.25 g of HCl gas 500 g of water?  
 (1) 0.1 m                              (2) 1 M  
 (3) 0.5 m                              (4) 1 m
- Q.6 One mole of any substance contains  $6.022 \times 10^{23}$  atoms/molecules. Number of molecules of H<sub>2</sub> SO<sub>4</sub> present in 100 mL of 0.02M H<sub>2</sub>SO<sub>4</sub> solution is \_\_\_\_\_  
 (1)  $12.044 \times 10^{20}$  molecules  
 (2)  $6.022 \times 10^{23}$  molecules  
 (3)  $1 \times 10^{23}$  molecules  
 (4)  $12.044 \times 10^{23}$  molecules
- Q.7 What is the mass percent of carbon in carbon dioxide?  
 (1) 0.034%                          (2) 27.27%  
 (3) 3.4%                                (4) 28.7 %
- Q.8 The empirical formula and molecular mass of a compound are CH<sub>2</sub>O and 180 g respectively. What will be the molecular formula of the compound?  
 (1) C<sub>9</sub>H<sub>18</sub>O<sub>9</sub>                          (2) CH<sub>2</sub>O  
 (3) C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>                          (4) C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>
- Q.9 If the density of a solution is 3.12 g ml<sup>-1</sup>, the mass of 1.5 mL solution in significant figures is \_\_\_\_\_  
 (1) 4.7 g                                (2)  $4680 \times 10^{-3}$ g  
 (3) 4.680g                              (4) 46.80g
- Q.10 Which of the following statements about a compound is incorrect?  
 (1) A molecule of a compound has atoms of different elements  
 (2) A compound cannot be separated into its constituent elements by physical methods of separation.  
 (3) A compound retains the physical properties of its constituent elements.  
 (4) The ratio of atoms of different elements in a compound is fixed.
- Q.11 Which of the following statements is correct about the reaction given below:  
 $4\text{Fe(s)} + 3\text{O}_2\text{(g)} \rightarrow 2\text{Fe}_2\text{O}_3\text{(g)}$

**Chemistry NCERT based QB**

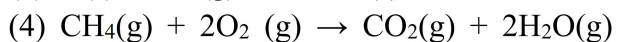
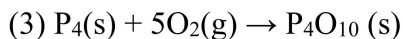
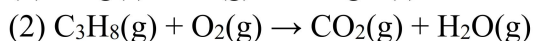
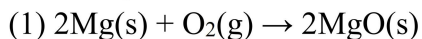
(1) Total mass of iron and oxygen in reactants = total mass of iron and oxygen in product therefore it follows law of conservation of mass.

(2) Total mass of reactants = total mass of product; therefore, law of multiple proportions is followed.

(3) Amount of  $\text{Fe}_2\text{O}_3$  can be increased by taking any one of the reactants (iron or oxygen) in excess.

(4) Amount of  $\text{Fe}_2\text{O}_3$  produced will decrease if the amount of any one of the reactants (iron or oxygen) is taken in excess.

Q.12 Which of the following reactions is not correct according to the law of conservation of mass.



Q.13 Which of the following statements indicates that law of multiple proportion is being followed.

(1) Sample of carbon dioxide taken from any source will always have carbon and oxygen in the ratio 1:2.

(2) Carbon forms two oxides namely  $\text{CO}_2$  and  $\text{CO}$ , where masses of oxygen which combine with fixed mass of carbon are in the simple ratio 2:1.

(3) When magnesium burns in oxygen, the amount of magnesium taken for the reaction is equal to the amount of magnesium in magnesium oxide formed.

(4) At constant temperature and pressure 200 mL of hydrogen will combine with 100 mL oxygen to produce 200 mL of water vapour.

Q.14 **Assertion (A):** The empirical mass of ethene is half of its molecular mass.

**Reason (R):** The empirical formula represents the simplest whole number ratio of various atoms present in a compound.

(1) Both A and R are true and R is the correct explanation of A.

(2) A is true but R is false.

(3) A is false but R is true.

(4) Both A and R are false.

Q.15 **Assertion (A):** One atomic mass unit is defined as one twelfth of the mass of one carbon-12 atom.

**Reason (R):** Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as standard.

(1) Both A and R are true and R is the correct explanation of A.

(2) Both A and R are true but R is not the correct explanation of A.

(3) A is true but R is false.

(4) Both A and R are false.

Q.16 **Assertion (A):** Combustion of 16 g of methane gives 18 g of water.

**Reason (R):** In the combustion of methane, water is one of the products.

(1) Both A and R are true but R is not the correct explanation of A.

(2) A is true but R is false.

(3) A is false but R is true.

(4) Both A and R are false.

Q.17 How much mass of sodium acetate is required to make 250 mL of 0.575 molar aqueous solution?

(1) 11.79 g

(2) 15.38 g

(3) 10.81 g

(4) 25.35 g

Q.18 What volume of dioxygen is required for complete combustion of 2 volumes of acetylene gas at NTP?

(1) 2 Volumes

(2) 5 Volumes

(3) 10 Volumes

(4) 4 Volumes

Q.19 The number of oxygen atoms present in 1 mole of oxalic acid dihydrate is

(1)  $6 \times 10^{23}$

(2)  $6.022 \times 10^{34}$

- (3)  $7.22 \times 10^{23}$  (4)  $36.13 \times 10^{23}$

Q.20 How many number of molecules and atoms (respectively) are present in 2.8 litres of a diatomic gas at STP?

- (1)  $6.023 \times 10^{23}$ ,  $7.5 \times 10^{23}$   
 (2)  $6.023 \times 10^{23}$ ,  $15 \times 10^{22}$   
 (3)  $7.5 \times 10^{22}$ ,  $15 \times 10^{22}$   
 (4)  $15 \times 10^{22}$ ,  $7.5 \times 10^{23}$

Q.21 The final molarity of a solution made by mixing 50 mL of 0.5 M HCl, 150 mL of 0.25 M HCl and water to make the volume 250 ml is

- (1) 0.5 M (2) 1 M  
 (3) 0.75 M (4) 0.25 M

Q.22 What will be the molality of the solution made by dissolving 10 g of NaOH in 100 g of water?

- (1) 2.5 m (2) 5 m  
 (3) 10 m (4) 1.25 m

Q.23 What will be the molality of the solution made by dissolving 10 g of NaOH in 100 g of water?

- (1) 2.5 m (2) 5 m  
 (3) 10 m (4) 1.25 m

Q.24 The following data are obtained when dinitrogen and dioxygen react together to form different compounds:

| Mass of dinitrogen | Mass of dioxygen |
|--------------------|------------------|
| 14 g               | 16 g             |
| 14 g               | 32 g             |
| 28 g               | 32 g             |
| 28 g               | 80 g             |

Which law of chemical combination is obeyed by the above experimental data?

- (1) Law of conservation of mass  
 (2) Law of definite proportions  
 (3) Law of multiple proportions  
 (4) Avogadro's Law

Q.25 Which mode of concentration does not change with temperature?

- (1) Molarity (2) Normality  
 (3) Molality (4) All of these

Q.26 Which of the following pairs illustrates the law of multiple proportions?

- (1)  $\text{PH}_3$ , HCl (2)  $\text{PbO}$ ,  $\text{PbO}_2$   
 (3)  $\text{H}_2\text{S}$ ,  $\text{SO}_2$  (4)  $\text{CuCl}_2$ ,  $\text{CuSO}_4$

Q.27 The reference standard used for defining atomic mass is

- (1) H – 1 (2) C – 12  
 (3) C – 13 (4) C – 14

Q.28 How much oxygen is required for complete combustion of 560 g of ethene?

- (1) 6.4 kg (2) 1.92 kg  
 (3) 2.8 kg (4) 9.6 kg

Q.29 What will be the molality of chloroform in the water sample which contains 15 ppm chloroform by mass?

- (1)  $1.25 \times 10^{-4}$  m (2)  $2.5 \times 10^{-4}$  m  
 (3)  $1.5 \times 10^{-3}$  m (4)  $1.25 \times 10^{-5}$  m

Q.30 A compound of magnesium contains 21.9% magnesium, 27.8% phosphorus and 50.3% oxygen. What will be the simplest formula of the compound?

- (1)  $\text{Mg}_2\text{P}_2\text{O}_7$  (2)  $\text{MgPO}_3$   
 (3)  $\text{Mg}_2\text{P}_2\text{O}_2$  (4)  $\text{MgP}_2\text{O}_4$

Q.31 What will be the mass of 100 atoms of hydrogen?

- (1) 100 g  
 (2)  $1.66 \times 10^{-22}$  g  
 (3)  $6.023 \times 10^{23}$  g  
 (4)  $100 \times 6.023 \times 10^{23}$  g

Q.32 Oxygen occurs in nature as a mixture of isotopes  $^{16}\text{O}$ ,  $^{17}\text{O}$  and  $^{18}\text{O}$  having atomic masses of 15.995 u, 16.999 u and 17.999 u and relative abundance of 99.763%, 0.037% and 0.200% respectively. What is the average atomic mass of oxygen?

- (1) 15.999 u (2) 16.999 u

(3) 17.999 u (4) 18.999 u

Q.33 How many atoms in total are present in 1 kg sugar?

(1)  $7.92 \times 10^{25}$  atoms (2)  $6 \times 10^{23}$  atoms  
(3)  $6.022 \times 10^{25}$  atoms (4) 1000 atoms

Q.34 What is the mass of carbon dioxide which contains the same number of molecules as are contained in 40 g of oxygen?

(1) 40 g (2) 55 g  
(3) 32 g (4) 44 g

Q.35 The mass of one molecule of carbon dioxide is

(1)  $26.49 \times 10^{24}$  g (2) 44 g  
(3)  $7.30 \times 10^{-23}$  g (4) 22 g

Q.36 For every one  $^{37}\text{Cl}$  isotope there are three  $^{35}\text{Cl}$  isotopes in a sample of chlorine. What will be the average atomic mass of chlorine?

(1) 35 (2) 37  
(3) 35.5 (4) 35.6

Q.37 1 g of Mg is burnt in a closed vessel containing 0.5 g of  $\text{O}_2$ . Which reactant is limiting reagent and how much of the excess reactant will be left?

(1)  $\text{O}_2$  is a limiting reagent and Mg is in excess by 0.25 g  
(2) Mg is a limiting reagent and is in excess by 0.5 g  
(3)  $\text{O}_2$  is a limiting reagent and is in excess by 0.25 g  
(4)  $\text{O}_2$  is a limiting reagent and Mg is in excess by 0.75 g

Q.38 Calcium carbonate decomposes on heating to give calcium oxide and carbon dioxide. How much volume of  $\text{CO}_2$  will be obtained by thermal decomposition of 50 g of  $\text{CaCO}_3$ ?

(1) 1 L (2) 11.2 L  
(3) 44 L (4) 22.4L

Q.39 Which of the following statements about Avogadro's hypothesis is correct?

(1) Under similar conditions of temperature and pressure, gases react with each other in simple ratio.  
(2) Under similar conditions of temperature and pressure, equal volumes of all gases contain same number of molecules.  
(3) At NTP all gases contain same number of molecules.  
(4) Gases always react with gases only at the given temperature and pressure.

Q.40 How many number of aluminium ions are present in 0.051 g of aluminium oxide?

(1)  $6.023 \times 10^{20}$  ions (2) 3 ions  
(3)  $6.023 \times 10^{23}$  ions (4) 9 ions

Q.41 How many oxygen atoms will be present in 88 g of  $\text{CO}_2$ ?

(1)  $24.08 \times 10^{23}$  (2)  $6.023 \times 10^{23}$   
(3)  $44 \times 10^{23}$  (4)  $22 \times 10^{24}$ 

Q.42 In the following question, a statement of assertion is followed by a statement of reason. Mark the correct choice.

**Assertion:** 1 mole of water is equal to  $6.023 \times 10^{23}$  molecules.**Reason:** The mass of one mole of a substance in grams is called the molar mass.(1) Both assertion and reason are true and reason is the correct explanation of assertion.  
(2) A Both assertion and reason are true but reason is not the correct explanation of assertion.  
(3) Assertion is true but reason is false.  
(4) Both assertion and reason are false.

Q.43 The relative number of atoms of elements, 'X' and 'Y' in a compound is 0.25 and 0.5. The empirical formula of compound is

(1) XY (2)  $\text{X}_2\text{Y}$   
(3)  $\text{XY}_2$  (4)  $\text{X}_2\text{Y}_2$

## Chemistry NCERT based QB

Q.44 One atom of an element weighs  $3.32 \times 10^{-23}$  g. How many number of gram atoms are there in 20 kg of the element?  
 (1) 2000 (2) 20  
 (3) 200 (4) 1000

Q.45 In a reaction container, 100 g hydrogen and 100 g  $\text{Cl}_2$  are mixed for the formation of HCl gas. What is the limiting reagent and how much HCl is formed in the reaction?  
 (1)  $\text{H}_2$  is limiting reagent and 36.5 g of HCl are formed.  
 (2)  $\text{Cl}_2$  is limiting reagent and 102.8 g of HCl are formed.  
 (3)  $\text{H}_2$  is limiting reagent and 142 g of HCl are formed.  
 (4)  $\text{Cl}_2$  is limiting reagent and 73 g of HCl are formed.

Q.46 A balanced equation for combustion of methane is given below:  
 $\text{CH}_{4(g)} + 2\text{O}_{2(g)} \rightarrow \text{CO}_{2(g)} + 2\text{H}_2\text{O}_{(g)}$   
 Which of the following statements is not correct on the basis of the above chemical equation?  
 (1) One mole of  $\text{CH}_4$  reacts with 2 moles of oxygen to give one mole of  $\text{CO}_2$  and 2 moles of water.  
 (2) One molecule of  $\text{CH}_4$  reacts with 2 molecules of oxygen to give one molecule of  $\text{CO}_2$  and 2 molecules of water.  
 (3) 22.4 L of methane reacts with 44.8 L of oxygen to give 44.8 L of  $\text{CO}_2$  and 22.4 L of water.  
 (4) 16 g of methane reacts with 64 g of  $\text{O}_2$  to give 44 g of  $\text{CO}_2$  and 36 g of water.

Q.47 A solution is prepared by adding 5 g of a solute 'X' to 45 g of solvent 'Y'. What is the mass per cent of the solute 'X'?  
 (1) 10% (2) 11.1%  
 (3) 90% (4) 75%

Q.48 What quantity of copper oxide will react with 2.80 L of hydrogen at NTP?  
 (1) 79.5 g (2) 2 g  
 (3) 9.95 g (4) 22.4 g

Q.49 Two elements 'P' and 'Q' combine to form a compound. Atomic mass of 'P' is 12 and 'Q' is 16. Percentage of 'P' in the compound is 27.3. What will be the empirical formula of the compound?  
 (1)  $\text{P}_2\text{Q}_2$  (2) PQ  
 (3)  $\text{P}_2\text{Q}$  (4)  $\text{PQ}_2$

Q.50 At NTP, 1 L of  $\text{O}_2$  reacts with 3 L of carbon monoxide. What will be the volume of CO and  $\text{CO}_2$  after the reaction?  
 (1) 1L  $\text{CO}_2$ , 1 L CO (2) 2 L  $\text{CO}_2$ , 2 L CO  
 (3) 1L  $\text{CO}_2$ , 2 L CO (4) 2 L  $\text{CO}_2$ , 1 L CO

Q.51 An organic compound on analysis gave C = 54.2%, H = 9.2% by mass. Its empirical formula is  
 (1)  $\text{CHO}_2$  (2)  $\text{CH}_2\text{O}$   
 (3)  $\text{C}_2\text{H}_8\text{O}$  (4)  $\text{C}_2\text{H}_4\text{O}$

Q.52 A mixture having 2 g of hydrogen and 32 g of oxygen occupies how much volume at NTP?  
 (1) 44.8 L (2) 22.4 L  
 (3) 11.2 L (4) 67.2 L

Q.53 4.28 g of NaOH is dissolved in water and the solution is made to 250 cc. What will be the molarity of the solution?  
 (1)  $0.615 \text{ mol L}^{-1}$  (2)  $0.428 \text{ mol L}^{-1}$   
 (3)  $0.99 \text{ mol L}^{-1}$  (4)  $0.301 \text{ mol L}^{-1}$

Q.54 What will be the number of hydrogen atoms in 8.5 g  $\text{NH}_3$ ?  
 (1)  $6.023 \times 10^{23}$  (2)  $5.31 \times 10^{-23}$   
 (3)  $9.034 \times 10^{23}$  (4)  $3 \times 10^{23}$

Q.55 What is the total number of electrons present in 1.6 g of methane?  
 (1)  $6.023 \times 10^{23}$  (2) 16

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- (3)  $12.04 \times 10^{23}$       (4)  $6.023 \times 10^{24}$

Q.56 What will be the molarity of the solution in which 0.365 g of HCl gas is dissolved in 100 mL of solution?

- (1) 2 M                      (2) 0.2 M  
(3) 1 M                      (4) 0.1 M

Q.57 HCl is produced in the stomach which can be neutralised by  $\text{Mg(OH)}_2$  in the form of milk of magnesia. How much  $\text{Mg(OH)}_2$  is required to neutralise one mole of stomach acid?

- (1) 29.16 g                  (2) 34.3 g  
(3) 58.33 g                  (4) 68.66 g

Q.58 What is the mass per cent of oxygen in ethanol?

- (1) 52.14%                  (2) 13.13%  
(3) 16%                      (4) 34.73%

Q.59 4.88 g of  $\text{KClO}_3$  when heated produced 1.92 g of  $\text{O}_2$  and 2.96 g of KCl. Which of the following statements regarding the experiment is correct?

- (1) The result illustrates the law of conservation of mass.  
(2) The result illustrates the law of multiple proportions.  
(3) The result illustrates the law of constant proportion.  
(4) None of the above laws is followed.

Q.60 What mass of hydrochloric acid is needed to decompose 50 g of limestone?

- (1) 36.5 g                      (2) 73 g  
(3) 50 g                        (4) 100 g

Q.61 Which of the following statements illustrates the law of multiple proportions?

- (1) An element forms two oxides, XO and  $\text{XO}_2$  containing 50% and 60% oxygen respectively. The ratio of masses of oxygen which combines with 1 g of element is 2 : 3.

(2) One volume of nitrogen always combines with three volumes of oxygen to form two volumes of ammonia.

(3) 3.47 g of  $\text{BaCl}_2$  reacts with 2.36 g of  $\text{Na}_2\text{SO}_4$  to give 3.88 g of  $\text{BaSO}_4$  and 1.95 g of NaCl.

(4) 20 mL of ammonia gives 10 volumes of  $\text{N}_2$  and

Q.62 Given below are few statements. Mark the statement which is not correct.

(1) Atoms are neither created nor destroyed in a chemical reaction.

(2) Law of definite proportion states that a given compound always contains exactly the same proportion of elements by weight.

(3) Gay Lussac's law of chemical combination is valid for all substances.

(4) A pure compound has always a fixed proportion of masses of its constituents.

Q.63 Which of the following postulates of Dalton's atomic theory explains the law of multiple proportion?

(1) Atoms of two elements may combine with one another to form more than one compound.

(2) Atoms combine in the ratio of small whole numbers to form compounds.

(3) The relative number and kinds of atoms are constant in a given compound.

(4) All of the above.

Q.64 The main drawback of Dalton's atomic theory is

(1) it could not explain the law of gaseous volumes

(2) it could not explain why atoms of different elements have different masses, sizes, etc

(3) it could not explain how and why atoms combine to form molecules

(4) all of the above.

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Q.65 A compound contains two elements 'X' and 'Y' in the ratio of 50% each. Atomic mass of 'X' is 20 and Y is 40. What can be its simplest formula?

- (1) XY (2) X<sub>2</sub>Y  
(3) XY<sub>2</sub> (4) X<sub>2</sub>Y<sub>3</sub>

Q.66 The empirical formula of a compound is CH<sub>2</sub>O<sub>2</sub>. What could be its molecular formula?

- (1) C<sub>2</sub>H<sub>2</sub>O<sub>2</sub> (2) C<sub>2</sub>H<sub>2</sub>O<sub>4</sub>  
(3) C<sub>2</sub>H<sub>4</sub>O<sub>4</sub> (4) CH<sub>4</sub>O<sub>4</sub>

Q.67 An organic compound contains 78% (by wt.) carbon and remaining percentage of hydrogen. The right option for the empirical formula of this compound is (Atomic wt. of C is 12, H is 1]

- (1) CH<sub>4</sub> (2) CH  
(3) CH<sub>2</sub> (4) CH<sub>3</sub>

Q.68 Equal masses of H<sub>2</sub>, O<sub>2</sub> and methane have been taken in a container of volume V at temperature 27°C in identical conditions. The ratio of the volumes of gases H<sub>2</sub> : O<sub>2</sub> : methane would be

- (1) 8 : 16 : 1 (2) 16 : 8 : 1  
(3) 16 : 1 : 2 (4) 8 : 1 : 2

Q.69 **Assertion:** One mole of NaCl contains  $6.023 \times 10^{23}$  molecules of sodium chloride.

**Reason:** 58.5 g of NaCl also contains  $6.023 \times 10^{23}$  molecules of NaCl.

- (1) If both assertion and reason are true and reason is the correct explanation of assertion.  
(2) If both assertion and reason are true but reason is not the correct explanation of assertion.  
(3) If assertion is true but reason is false.  
(4) If both assertion and reason are false.

Q.70 2.0 g of oxygen contains number of atoms equal to that in

- (1) 4.0 g of sulphur (2) 7.0 g of nitrogen  
(3) 0.5 g of hydrogen (4) 2.3 g of sodium.

Q.71 The number of atoms in 0.1 mol of a triatomic gas is ( $N_A = 6.02 \times 10^{23} \text{ mol}^{-1}$ )

- (1)  $6.026 \times 10^{22}$  (2)  $1.806 \times 10^{23}$   
(3)  $3.600 \times 10^{23}$  (4)  $1.800 \times 10^{22}$

Q.72 How many atoms are there in 4.25 g of NH<sub>3</sub>?

- (1)  $6 \times 10^{23}$  (2)  $1.5 \times 10^{23}$   
(3)  $3.4 \times 10^{23}$  (4)  $1 \times 10^{23}$

Q.73 The number of moles of hydrogen molecules required to produce 20 moles of ammonia through Haber's process is

- (1) 40 (2) 10  
(3) 20 (4) 30

Q.74 Calculate molarity of 63% w/w HNO<sub>3</sub> solution if density is 1.4 g/mL.

- (1) 14 M (2) 12 M  
(3) 10 M (4) 8 M

Q.75 A mixture of 2.3 g formic acid and 4.5 g oxalic acid is treated with conc. H<sub>2</sub>SO<sub>4</sub>. The evolved gaseous mixture is passed through KOH pellets. Weight (in g) of the remaining product at STP will be

- (1) 1.4 (2) 3.0  
(3) 2.8 (4) 4.4

Q.76 The molar concentration of Cl<sup>-</sup> ions in a solution obtained by mixing 300 mL of 0.3 M NaCl and 200 mL of 0.4 M BaCl<sub>2</sub> is

- (1) 0.9 M (2) 1.5 M  
(3) 0.25 M (4) 0.5 M

Q.77 If Avogadro number  $N_A$ , is changed from  $6.022 \times 10^{23} \text{ mol}^{-1}$  to  $6.022 \times 10^{20} \text{ mol}^{-1}$ , this would change

- (1) the mass of one mole of carbon  
(2) the ratio of chemical species to each other in a balanced equation  
(3) the ratio of elements to each other in a compound  
(4) the definition of mass in units of grams.

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Q.78 The statements for laws of chemical combinations are given below. Mark The option which is not correctly Matched.

(1) Matter can neither be created nor destroyed:

Law of conservation of mass

(2) A compound always contains exactly the same proportion of elements by weight:

Law of definite proportions

(3) When gases combine they do so in a simple ratio by weight: Gay Lussac's Law

(4) Equal volumes of gases at same temperature and pressure contain same number of molecules: Avogadro's Law



## Mole Concept

## NCERT Exercise - Answer Key

|      |   |      |   |      |   |      |   |      |   |
|------|---|------|---|------|---|------|---|------|---|
| Q.1  | 3 | Q.2  | 2 | Q.3  | 4 | Q.4  | 3 | Q.5  | 4 |
| Q.6  | 1 | Q.7  | 2 | Q.8  | 3 | Q.9  | 1 | Q.10 | 3 |
| Q.11 | 1 | Q.12 | 2 | Q.13 | 2 | Q.14 | 1 | Q.15 | 1 |
| Q.16 | 3 | Q.17 | 1 | Q.18 | 2 | Q.19 | 4 | Q.20 | 3 |
| Q.21 | 4 | Q.22 | 1 | Q.23 | 1 | Q.24 | 3 | Q.25 | 3 |
| Q.26 | 2 | Q.27 | 2 | Q.28 | 2 | Q.29 | 1 | Q.30 | 1 |
| Q.31 | 2 | Q.32 | 1 | Q.33 | 1 | Q.34 | 2 | Q.35 | 3 |
| Q.36 | 3 | Q.37 | 1 | Q.38 | 2 | Q.39 | 2 | Q.40 | 1 |
| Q.41 | 1 | Q.42 | 2 | Q.43 | 3 | Q.44 | 4 | Q.45 | 2 |
| Q.46 | 3 | Q.47 | 1 | Q.48 | 3 | Q.49 | 4 | Q.50 | 4 |
| Q.51 | 4 | Q.52 | 1 | Q.53 | 2 | Q.54 | 3 | Q.55 | 1 |
| Q.56 | 4 | Q.57 | 1 | Q.58 | 4 | Q.59 | 1 | Q.60 | 1 |
| Q.61 | 1 | Q.62 | 3 | Q.63 | 2 | Q.64 | 4 | Q.65 | 2 |
| Q.66 | 3 | Q.67 | 4 | Q.68 | 3 | Q.69 | 2 | Q.70 | 1 |
| Q.71 | 2 | Q.72 | 1 | Q.73 | 4 | Q.74 | 1 | Q.75 | 3 |
| Q.76 | 4 | Q.77 | 1 | Q.78 | 3 |      |   |      |   |