CHEMISTRY CLASS-XI MODULE-01

Some Basic Concept of Chemistry

Structure of Atom | Classification of Elements | Chemical Bonding & Molecular Structure



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NEET Past 10 Year Questions



1.	Which one of the followings	has	maximum	number	of atoms?
					(2020)

- a. 1 g of Mg(s) [Atomic mass of Mg = 24]
- b. 1 g of $O_2(g)$ [Atomic mass of O = 16]
- c. 1 g of Li(s) [Atomic mass of Li = 7]
- d. 1 g of Ag(s) [Atomic mass of Ag = 108]
- 2. One mole of carbon atom weighs 12g, the number of atoms in it is equal to. (2020 Covid Re-NEET)

(Mass of carbon- 12 is 1.9926×10^{-23} g)

- a. 6.022×10^{22}
- b. 12×10^{22}
- c. 6.022×10^{23}
- d. 12×10^{23}
- **3.** The number of moles of hydrogen molecules required to produce 20 moles of ammonia through Haber's process is : (2019)

a. 10

b. 20

c. 30

d. 40

- **4.** A mixture of 2.3 g formic acid and 4.5 g oxalic acid is treated with concentration H₂SO₄. The evolved gaseous mixture is passed through KOH pellets. Weight (in g) of the remaining product at STP will be: (2018)
 - a. 1.4

b. 3.0

c. 4.4

d. 2.8

- **5.** In which case is number of molecules of water maximum? (2018)
 - a. 18 mL of water
 - b. 0.18 g of water
 - c. 10⁻³ mol of water
 - d. 0.00224 L of water vapours at 1 atm and 273 K
- **6.** A hydrocarbon contains 85.7% of Carbon and 14.3% of Hydrogen. If 42 mg of the compound contains 3.01×10^{20} molecules, the molecular formula of the compound will be: (2017-Gujarat)

a. C_2H_4

b. C_3H_6

c. C₆H₁₂

d. C₁₂H₂₄

- 7. Suppose the elements X and Y combine to form two compounds XY₂ and X₃Y₂. When 0.1 mole of XY₂ weighs 10 g and 0.05 mole of X₃Y₂ weighs 9 g, the atomic weights of X and Y are: (2016 II)
 - a. 20, 30

b. 30, 20

c. 40, 30

d. 60, 40

8. The number of water molecules is maximum in: (2015 Re)

a. 18 moles of water

b. 18 molecules of water

c. 1.8 gram of water

d. 18 gram of water

- **9.** 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: (2015 Re)
 - a. The ratio of elements to each other in a compound
 - b. The definition of mass in units of grams
 - c. The mass of one mole of carbon
 - d. The ratio of chemical species to each other in a balanced equation
- 10. What is the mass of the precipitate formed when 50 mL of 16.9% solution of ${\rm AgNO_3}$ is mixed with 50 mL of 5.8% NaCl solution?

$$(Ag = 107.8, N = 14, O = 16, Na = 23, Cl = 35.5)$$
 (2015 Re)

a. 3.5 g

b. 7 g

c. 14 g

d. 28 g

11. 20.0 g of a magnesium carbonate sample decomposes on heating to give carbon dioxide and 8.0 g magnesium oxide. What will be the percentage purity of magnesium carbonate in the sample?
(2015 Re)

(Atomic weight of Mg = 24)

a. 96

b. 60

c. 84

d. 75

12. When 22.4 litres of $H_2(g)$ is mixed with 11.2 litres of $Cl_2(g)$, each at STP, the moles of HCl(g) formed is equal to: (2014)

a. 2 mol of HCl(g)

b. 0.5 mol of HCl(g)

c. 1.5 mol of HCl(g)

d. 1 mol of HCl(g)

13. 1.0 g of magnesium is burnt with 0.56 g O_2 in a closed vessel. Which reactant is left in excess and how much? (2014) (Atomic weight Mg = 24; O = 16)

a. O₂, 0.16 g

b. Mg, 0.44 g

c. O₂, 0.28 g

d. Mg, 0.16 g

14. Equal masses of H_2 , O_2 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 $H_2: O_2:$ methane would be: (2014)

a. 8:16:1

b. 16:8:1

c. 16:1:2

d. 8:1:2

NEET Full Course Material

- **15.** 6.02×10^{20} molecules of urea are present in 100 mL of its solution. The concentration of solution is: (2013)
 - a. 0.02 M
- b. 0.01 M
- c. 0.001 M
- d. 0.1 M
- **16.** An excess of $AgNO_3$ is added to 100 mL of a 0.01 M solution of dichlorotetraaquachrominum(III) chloride. The number of moles of AgCl precipitated would be: (2013)
 - a. 0.001

b. 0.002

c. 0.003

d. 0.01

- **17.** How many grams of concentrated nitric acid solution should be used to prepare 250 mL of 2.0 M HNO₃? The concentrated acid is 70 % HNO₃: (2013)
 - a. 45.0 g conc. HNO₃
- b. 90.0 g conc. HNO₃
- c. 70.0 g conc. HNO₃
- d. 54.0 g conc. HNO₃
- **18.** Which has the maximum number of molecules among the following? (2011 Mains)
 - a. $8 g H_2$

- b. 64 g SO_2
- c. 44 g CO₂
- d. 48 g O_3

ABOUT PHYSICS WALLAH



Alakh Pandey is one of the most renowned faculty in NEET & JEE domain's Physics. On his YouTube channel, Physics Wallah, he teaches the Science courses of 11th and 12th standard to the students aiming to appear for the engineering and medical entrance exams.



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