

XI CHEMISTRY TEST ON SOME BASIC CONCEPTS OF CHEMISTRY

M.M.: 26

Time: 1 Hr.

1. If 10^{21} molecules are removed from 200 mg of CO_2 then how many moles of CO_2 are left? 2
2. A solution is prepared by adding 2 g of a substance A to 18 g of water. Calculate mass percent of the solute. 2
3. What are molality and molarity? Write its unit also. 2
4. How many moles of CO_2 will be obtained when 0.274 mole of $\text{C}_2\text{H}_5\text{OH}$ is burnt? 2
5. How much copper can be obtained from 100 g of copper sulphate? 2
6. A solution contains 25% water, 25% ethanol and 50% acetic acid by mass. Calculate the mole fraction of each component. 3
7. Calculate the concentration of nitric acid in moles per litre in a sample which has a density, 1.41 g ml^{-1} and the mass per cent of nitric acid in it being 69%. 3
8. Calculate number of atoms in each of the following : 2 + 2 + 2 = 6
 - a. 52 moles of Helium
 - b. 52 u of Helium
 - c. 52 g of Helium
9. An oxide of nitrogen has the following percentage composition : 4
Nitrogen = 25.94 and oxygen = 74.06. Calculate the empirical formula.

HEAD OFFICE : B-1/30, MALVIYA NAGAR PH. 26675331, 26675333, 26675334

ALSO AT : H-36 B, KALKAJI PH. : 26228900, 40601840 AND E-555, 1ST FLOOR, NEAR RAMPHAL CHOWK, SEC-7 DWARKA PH. 9560088728-29

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