SHIKSHA CLASSES

Subject : Chemistry | **Question Paper** | **Total Marks :25**

Class : XI | **1 : Some Basic Concepts of Chemistry** | **Time : 1 Hour**

SECTION A

Q1. : Choose the correct option : 4

i) Which of the following compounds can NOT demonstrate the law of multiple proportions?

a) NO, NO_2 b) CO, CO_2

c) H2O, H_2O_2 d) Na_2S, NaF

ii) SI unit of the quantity electric current is

a) Volt b) Ampere

c) Candela d) Newton

iii) A compound has haemoglobin like structure, it has only one Fe. It contains 4.6% of Fe. The approximate molecular mass is

a) 100 g mol^{-1} b) 1200 g mol^{-1}

c) 1400 g mol^{-1} d) 1600 g mol^{-1}

iv) A measured temperature on Fahrenheit scale is 200F. What will this reading be on the Celsius Scale?

a) 40 ^0C b) 94 ^0C

c) 93.3 ^0C d) 30 ^0C

Q.2 : Answer the following : 2

i) What are physical properties?

ii) What is the SI unit of amount of substance?

SECTION B

: Answer the following : (ANY 3) 6

Q.3 : Give reason : Mass of a body is more fundamental property than its weight.

Q.4 : State and explain the law of conservation of mass.

Q.5 : 24 g of carbon reacts with some oxygen to make 88 grams of carbon dioxide. Find out how much oxygen must have been used.

Q.6 : Explain : Motor volume of gas.

Q.7 : State and explain Dalton's atomic theory.

SECTION C

: Answer the following : (ANY 3) 9

Q.8 : Calculate the molecular mass of the following in U :

a) NH_3 b) CH_3COOH

c) C_2H_5OH

Q.9 : a) State the law of multiple proportions.

b) State and explain Avogardro's law.

Q.10 : Calculate the number of atoms in each of the following :

a) 52 moles of Argon (Ar)

b) 52 u of Helium (He)

c) 52 g of Helium (He)

Q.11 : a) Define Volume

b) State and explain. Gay Lussac's law of gaseous volume.

Q.12 : Define Molecular mass? How is molecular mass of a substance calculated? Give example

SECTION D

: Answer the following : (ANY 1) 4

Q.13 : a) Explain Formula mass with an example

b) **Find the formula mass of :**

i) NaCl ii) $Cu(NO_3)_2$

Q.14 : a) Explain mole concept.

b) In two moles of acetaldehye (CH_3CHO) Calculate the following :

i) Number of moles of carbon

ii) Number of moles of hydrogen

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