

XI Chemistry Worksheet

Time: 30 min

Ch#1 : Some Basic Concepts of Chemistry -01

Full Marks: 20

Instructions:

1. All questions are compulsory.
2. Please give the explanation for the answer where applicable.

Q1 - What is the mass of 3 gram atoms of calcium?

(1 Mark)

Q2 - Calculate the mass of CaCO_3 which is required to react with 25 ml of 0.75 M HCl.

(5 Marks)

Q3 - During preparation of ammonia by Haber's process 30 L of H_2 and 30 L of N_2 are mixed. The yield of NH_3 was 50%. Find the composition of gaseous mixtures.

(3 Marks)

Q4 - Potassium bromide (KBr) contains 32.9% potassium by mass. If 6.40 g of Br_2 is made to react with 3.60 g of potassium, find the actual mass of potassium which reacts with bromine.

(2 Marks)

Q5 - One atom of an element weighs 1.8×10^{-22} g. What is the atomic mass of element?

(1 Mark)

Q6 - Chlorophyll contains 2.7% of Magnesium by mass. The number of magnesium atoms present in 4.00g of chlorophyll is

(3 Marks)

Q7 - How much water is required to dilute 10 ml of 10 N hydrochloric acid to make it exactly decinormal?

(2 Marks)

Q8 - Find the molarity of solution prepared by dissolving 4g of NaOH in 3L of solution.

(2 Marks)

Q9 - How many molecules are present in 1 kg mole?

(1 Mark)