

Worksheet: Some Basic Concepts of Chemistry

IB · Class 11 · Chemistry · 5 questions · 15 marks

Name: _____

Date: _____

Score: _____ / 15

Q1. Calculate the mass of 0.5 moles of CaCO_3 ($\text{Ca} = 40$, $\text{C} = 12$, $\text{O} = 16$). *[2 marks]*

Q2. A compound contains 92.3% C and 7.7% H by mass. Find its empirical formula. If its vapour density is 13, find the molecular formula. *[5 marks]*

Q3. How many grams of O_2 are needed to completely burn 24 g of CH_4 ? *[3 marks]*

Q4. Why is molarity temperature-dependent but molality is not? *[2 marks]*

Q5. 2 g H_2 reacts with 16 g O_2 to form water. Find the limiting reagent and the mass of water formed. *[3 marks]*
