

## XI Chemistry Worksheet

Time: 30 min

Ch#1 : Some Basic Concepts of Chemistry -02

Full Marks: 20

### Instructions:

1. All questions are compulsory.

2. Please give the explanation for the answer where applicable.

Q1 - Express the results of following calculations to appropriate number of significant digits

$$816 + 0.02456 + 215.36$$

(2 Marks)

Q2 - Calculate the molar volume of water at 273 K (density of water = 1.00 g/cm<sup>3</sup>).

(1 Mark)

Q3 - How many moles of methane are required to produce 22 g CO?

(5 Marks)

Q4 - A solution is prepared by dissolving 5.85g of NaCl in 90g of H<sub>2</sub>O. Find mole fraction of NaCl and H<sub>2</sub>O.

(3 Marks)

Q5 - Find the molarity of solution prepared by dissolving 7.1g of Na<sub>2</sub>SO<sub>4</sub> in 100ml of aqueous solution.

(3 Marks)

Q6 - What is one atomic mass unit (amu) or Unified mass (U)?

(1 Mark)

Q7 - Find the number of significant figures in  $3.248 \times 10^{-3}$ .

(1 Mark)

Q8 - Write the S.I. unit of molality.

(1 Mark)

Q9 - What is the value of Avogadro constant?

(1 Mark)

Q10 - Empirical formula of an organic compound is C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>. Its molecular weight is 118. Write its molecular formula.

(2 Marks)