MODEL ACTIVITY TASKS
CLASS – XI
CHEMISTRY

Chapter : Some basic concepts of chemistry

Write the answers to the following questions :

1. A gaseous compound "X" consists of carbon, hydrogen and sulfur. Upon combustion in excess of oxygen, 3 volumes of "X" produces 3 volumes of carbon dioxide , 3 volumes of sulfur dioxide and 6 volumes of steam. Determine the formula of the compound "X". All volumes have been measured at constant temperature and pressure.

2. Among molarity, molality and normality , the three concentration units in which the concentration of the solute in a solution can be expressed, which one is independent of temperature and pressure and why? Explain.

3. Complete reaction of 0.6 g of a metal with dilute hydrochloric acid produced 220 mL of hydrogen gas at 17° C and 755 mm of Hg .The gas was collected over water. Determine the equivalent weight of the metal. Saturation vapour pressure of water at 17° C is 14.4 mm of Hg.

4. Calculate the molality of an aqueous acetic acid solution that is 2.05 (M) in the acid and has a density of 1.02 g /mL .

5. Explain with an appropriate example how the vapour density of a gas can vary with temperature.

Students will write answers to these activity tasks in subject specific exercise books at home, and submit the exercise books to respective subject teachers after schools reopen. Under no circumstance, students will go out of home.