HINTS & SOLUTION WORKBOOK-1

Stoichiometry - I

Daily Tutorial Sheet-12	Level - 3

141.(C) M.M of $H_2O = 2 \times M_H + M_O = 2 \times \frac{M_{e^{12}}}{6} + \frac{M_{C^{12}}}{6} \times 16 = 36$

142.(B) $M_{C_6H_8} = 80\,g/mol$.

Each mole of C_6H_8 contains 3 moles of double bonds

$\Rightarrow$ $\frac{80}{3}$ g of C_6H_8 contains 1 moles of double bonds.

143.(A) $2X + \frac{5}{2}O_2 \longrightarrow X_2O_5$

Moles of X = 2 × moles of X_2O_5

$$\frac{2.0769}{M_X} = \frac{2 \times 3.6769}{2M_X + 80}$$

Calculate M_x and then moles $= \frac{2.0769}{M_x}$.

144.(A) Water is liquid at the given T & P.

$\therefore$ Volume of 20g of H_2O 20 ml.

145.(D) Avg $MQ = \frac{A_1 \times M_{Q97}}{100} + \frac{A_2 \times M_{Q14}}{100} = \frac{23.4 \times 8.082 \times 12}{100} + \frac{76.6}{100} \times 7.833 \times 12 = 94.695$

146.(B) Here abundance of O^{18}, is more

$\Rightarrow$ Avg atomic mass will be close to that of O^{18}