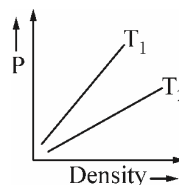| Date Planned : __ / __ / __	Daily Tutorial Sheet-12	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level-3	Exact Duration :_____

141. Figure shows graphs of pressure vs density for an ideal gases at two temperatures T_1 and T_2

    (A) $T_1 > T_2$

    (B) $T_1 = T_2$

    (C) $T_1 < T_2$

    (D)   Any of the three is possible

142. Vessel A of capacity 3 litre contains Helium gas at pressure 2 atm and temperature $0°C$. Another vessel B of capacity 4 litre contains the same gas at pressure 1 atm and temperature $27°C$. If the vessels are connected together by a tube of negligible volume, what will be final pressure at $27°C$?

    (A)   1.43 atm   **(B)**   1.51 atm   **(C)**   1.20 atm   **(D)**   1.00 atm

143. A vessel containing 1 gm of oxygen at a pressure of 10 atm and a temperature of $47°C$. The pressure drops to $\dfrac{5}{8}$th of its original value and temperature falls to $27°C$ due to leakage of gas. Then mass of oxygen leaked out will be :

   **(A)**   0.22 g   **(B)**   0.88 g   **(C)**   0.432 g   **(D)**   0.33 g

144. When 0.75 mole of solid A_4 and 2 mole gaseous O_2 are heated in a sealed vessel completely using up the reactants and producing only one compound. It is found that when the temperature is reduced to the initial temperature the content of the vessel exhibit a pressure equal to half the original pressure. The molecular formula of the product would be

    (A) AO_2 **(B)** A_2O_3 **(C)** A_3O_2 **(D)** A_3O_4
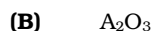
145. Which of the following graphs represent Boyle's law?

    (A)   **(B)**   **(C)**   **(D)**
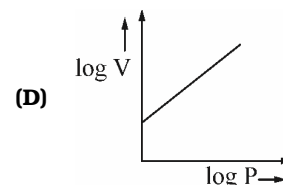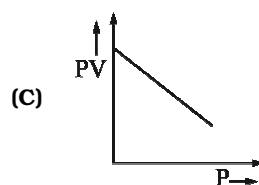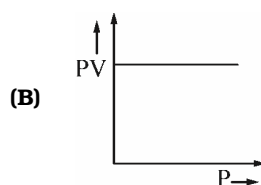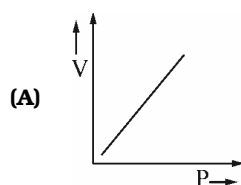
146. 50 ml of gas A diffuse through a membrane in the same time as for diffusion of 40 ml of gas B under identical conditions of pressure and temperature. If molecular mass of A is 64 that of B would be :

    (A)   100   **(B)**   250   **(C)**   200   **(D)**   80