ARJUNA (NEET)

STATES OF MATTER

DPP-04

1. 30 cm^3 of gas at 2.02 atm and 25ºC was compressed to 15 cm^3 at 35ºC. Calculate the final pressure of the gas.
(A) 4.17 atm (B) 5 atm
(C) 2 atm (D) 4 atm

2. A vessel of 5 litre capacity maintained at 27ºC was filled with 16 g of O_2 gas. Calculate the pressure of the gas in atmosphere in the container.
(A) 2.46 atm (B) 4.9 atm
(C) 5.7 atm (D) 9 atm

3. Calculate the density of CO_2 gas which has pressure 745 mm at 65ºC.
(A) 1.55 g/L (B) 2.9 g/L
(C) 4.8 g/L (D) 9.2 g/L

4. A 25º C and 760 mm of Hg pressure a gas occupies 600 mL volume. What will be its pressure a height where temperature is 10ºC and volume of the gas is 640 mL.
(A) 776 mm Hg (B) 676.6 mm Hg
(C) 800 mm Hg (D) 790 mm Hg

5. The density of a gas is 1.27 gL^{-1} at 50ºC and 0.987 × 10^5 Pa. Calculate its molar mass.
(A) 35 g mol^{-1} (B) 70 g mol^{-1}
(C) 90 g mol^{-1} (D) 88 g mol^{-1}

6. 1 g of helium gas is confined in a two litre flask under a pressure of 2.05 atm. What is its temperature?
(A) 200 K (B) 400 K
(C) 600 K (D) 800 K

7. Calculate the molar volume of a gas at STP
(A) 44. 8 L (B) 22.4 L
(C) 11.2 L (D) 29 L

8. 30 litre of ammonia gas at 30°C and 40 atm pressure is allowed to expand in a space of 40 litre capacity and pressure become 20 atm. Calculate the drop in temperature.
(A) 101 K (B) 301 K
(C) 201 K (D) 202 K

9. Calculate the pressure of a gas whose molar mass is 29.3 g mol^{-1}, having density 1.29 g mol^{-1}, having density 1.29 kg m^{-3} at 273 K temperature.
(A) 10^5 Pa (B) 10^8 Pa
(C) 10^9 Pa (D) 10^7 Pa

ANSWERS

1. (A)
2. (A)
3. (A)
4. (B)
5. (A)
6. (A)
7. (B)
8. (A)
9. (A)

Note - If you have any query/issue

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