ARJUNA (NEET)

STATE OF MATTER

DPP-02

1. The pressure of gas A (P_A) is 3.0 atm when it occupies 5L of the volume. Calculate the final pressure when it is compressed to 3L volume at constant temperature.
(A) 5 atm (B) 2 atm
(C) 4 atm (D) 3 atm

2. A balloon is filled with hydrogen at room temperature. It will burst if pressure exceeds 0.2 bar. If at 1 bar pressure the gas occupies 2.27 L volume, upto what volume can the balloon be expanded?
(A) 11.35 L (B) 19 L
(C) 14 L (D) 28 L

3. What will be the volume of a given mass of a gas at a pressure of 50 cm of Hg, if it occupies 260 mL at a pressure of 98 cm of Hg keeping the temperature constant.
(A) 4L (B) 509.6 mL
(C) 200 mL (D) 402 mL

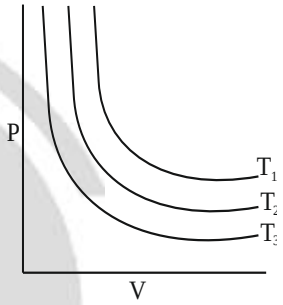
4. What is the minimum pressure required to compress 460 dm^3 of air at 2 bar to 230 dm^3 at 30ºC?
(A) 4 bar (B) 2 bar
(C) 3 bar (D) 9 bar

5. Convert 200ºC in K.
(A) 473 K (B) –73 K
(C) –473K (D) +73 K

6. S. I. Unit of volume is?
(A) m^3 (B) cm^3
(C) L (D) dm^3

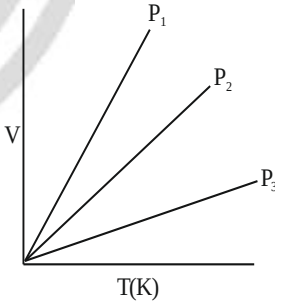
7. S. I. Unit of temperature is?
(A) Kelvin (B) ºC
(C) Fahrenite (D) Both A and B

8. Which of the following is correct relation ?



(A) $T_1 > T_2 > T_3$ (B) $T_3 > T_2 > T_1$
(C) $T_1 = T_2 = T_3$ (D) None of these

9. Which of the following is correct relation



(A) $P_1 > P_2 > P_3$ (B) $P_3 > P_2 > P_1$
(C) $P_1 = P_2 = P_3$ (D) None of these

ANSWERS

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

Note - If you have any query/issue

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