Set – 1

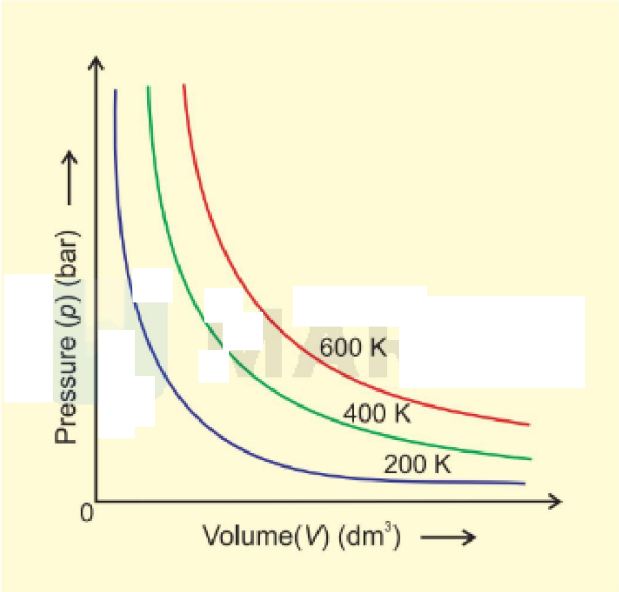

Fig. 5.5(a) *Graph of pressure, p vs. Volume, V of a gas at different temperatures.*

Q1. The above graphs between P V/s V are called as

A. Isotherms
B. Isobars
C. Isochore
D. Cannot say

Ans. (A)

Q2. Isotherms follow

A. Charles law
B. Boyles law
C. Gaylusacs law
D. None of the above

Ans. (B)

Set – 2

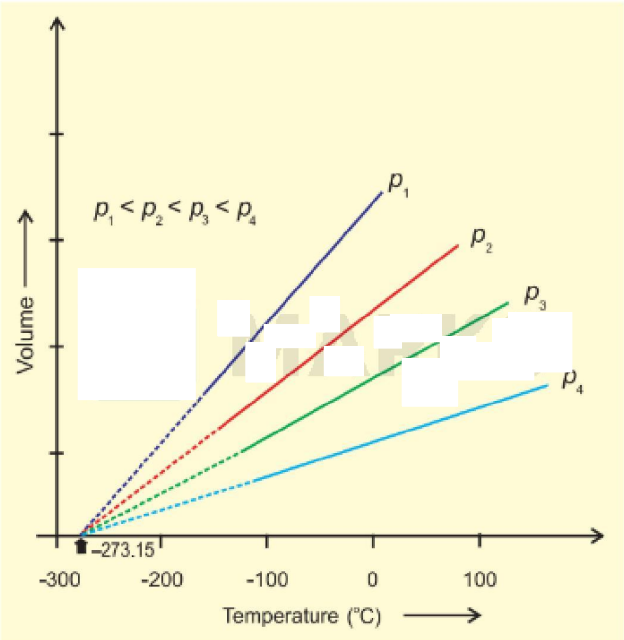

Fig. 5.6 *Volume vs Temperature (˚C) graph*

Q1. The above graphs between V V/s T are called as

A. Isotherms
B. Isobars
C. Isochore
D. Cannot say

Ans. (B)

Q2. Isobars follow

A. Charles law
B. Boyles law
C. Gaylusacs law
D. None of the above

Ans. (A)

Set – 3

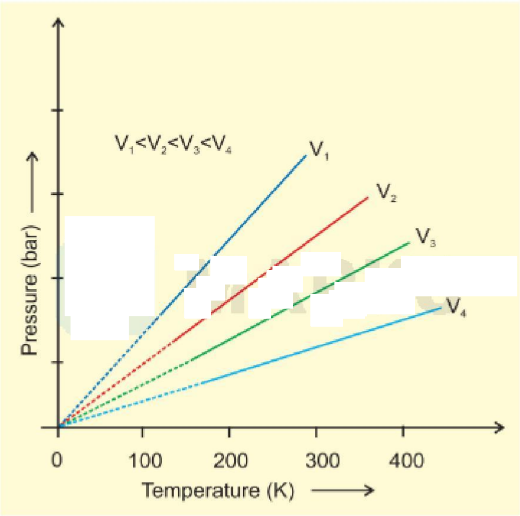

Fig. 5.7 *Pressure vs temperature (K) graph (Isochores) of a gas.*

Q1. The above graphs between P V/s T are called as

A. Isotherms
B. Isobars
C. Isochore
D. Cannot say

Ans. (C)

Q2. Isochores follow

A. Charles law
B. Boyles law
C. Gaylusacs law
D. None of the above

Ans. (C)

Set – 4

-

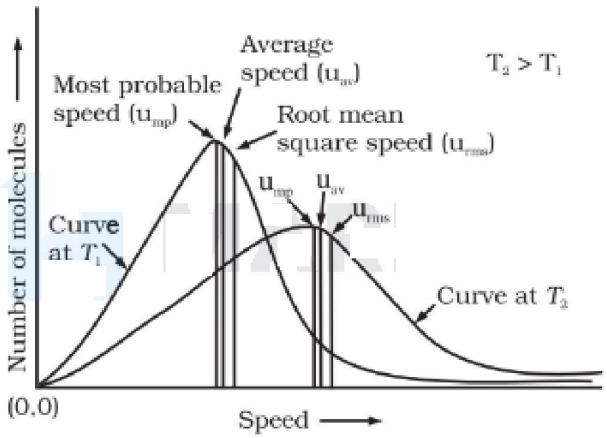

Fig. 5.8: *Maxwell-Boltzmann distribution of speeds*

Q1. What's the increasing order of speeds of the gases

A. $U_{mp}>U_{avg}>U_{rms}$
B. $U_{rms}>U_{avg}>U_{mp}$
C. $U_{avg}>U_{mp}>U_{rms}$
D. $U_{rms}>U_{mp}>U_{avg}$

Ans. (B)

Q2. Ratio between the three speeds of gases Ump:Uavg:Urmsis

A. 1:1.128:1.224
B. 1.128:1:1.224
C. 1.224:1.128:1
D. 1:1.224:1.128

Ans. (A)

Q3. Most of the molecules of gas possess which type of speed

A. Root mean square velocity
B. Average speed

C. Most probable speed
D. None of the above

Ans. (C)

Set – 5

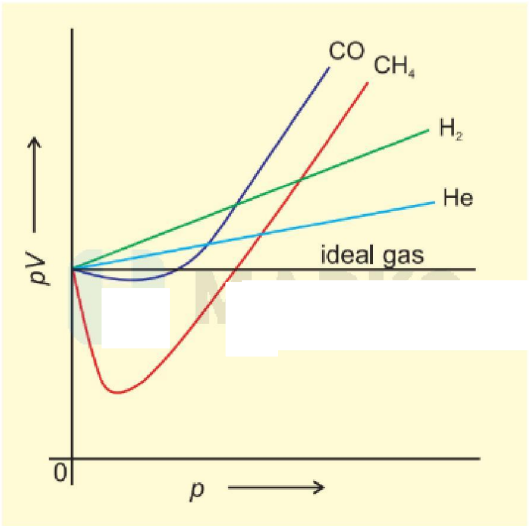

Fig. 5.10 *Plot of pV vs p for real gas and ideal gas*

Q1. For curves of H2and He, as the pressure increases

A. PV also increases
B. PV decreases
C. PV remains constant
D. None of the above

Ans. (A)

Q2. What happens to the plot of CO and CH4as the pressure increases

A. First positive deviation then negative deviation
B. First negative deviation then positive deviation
C. Positive deviation
D. Negative deviation

Ans. (B)

Set – 6

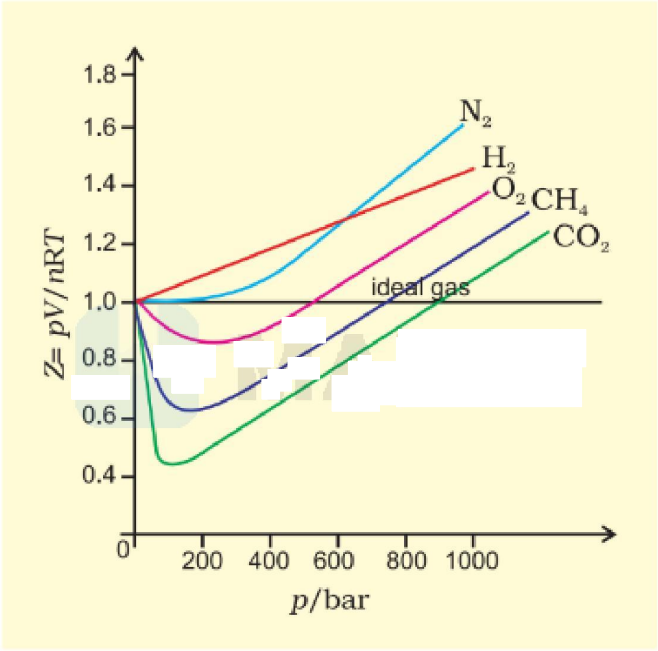

Fig. 5.12 *Variation of compressibility factor for some gases*

Q1. At high pressures, Z is

A. >1
B. <1
C. =1
D. Cannot say

Ans. (A)

Q2. If Z<1, then gas is at

A. High pressure
B. Low pressure
C. Intermediate pressure
D. None of the above

Ans. (C)

Q3. Which of the following gas does not show Z<1 at any Pressure

A. CH_4
B. CO_2
C. O_2
D. H_2

Ans. (D)

Q4. Identify the set of molecules which shows Z<1

A. H_2, CO_2, CH_4
B. N_2, O_2, CO_2
C. O_2,CH_4,CO_2
D. H_2, N_2,O_2

Ans. (C)