EXERCISE

Choose the Correct Option.

1. If absolute temperature of a gas is doubled and the pressure is reduced to, one-half the volume of gas will,
   a. remain unchanged
   b. double
   c. reduce to half
   d. increase four times
2. One dm^3 of Hydrogen at STP weighs approximately
   a. 0.0789g
   b. 0.0799g
   c. 0.0987g
   d. 0.0899g
3. In a factory producing liquid air, one of the pipes carrying dry air at -80°C is blocked with a white solid. This white solid is,
   a. Argon
   b. Ice
   c. Nitrogen
   d. Carbon dioxide
4. The spreading of perfume or scent in air is due to
   a. Diffusion
   b. Effusion
   c. Attraction with air
   d. Low density
5. A gas has certain volume at 10°C. How much temperature should be raised to double its volume,
   a. 566K
   b. 283K
   c. 293K
   d. 283°C
6. The rate of diffusion of hydrogen (H_2) compared with helium (He) is,
   a. 0.5 times
   b. 1.4 times
   c. 2 times
   d. 4 times
7. The non-ideal behaviour results chiefly from
   a. Intermolecular attraction and infinite volume
   b. Elastic collisions and finite volume
   c. Intermolecular attractions and finite volume
   d. Intermolecular attraction only
8. The molar volume of helium (He) is $44.8dm^3$ at,
   a. 100 °C and 1atm
   b. b. 25 °C and 0.25atm
   c. 0 °C and 0.5atm
   d. 40 °C and 0.5atm

9. Which statement about the behaviour of th particles in a gas is not correc
   a. They are able to move at great speeds
   b. The forces of attraction between the particles are negligible
   c. There is large space among the particles
   d. They are arranged in regular patterns

10. At the same temperature and pressure which of the following gases has t greatest density,
   a. CO_2 b. SO_2
   c. Cl_2 d. H_2O

11. Weight of one dm^3 of O_2 at STP is
   a. 1.4384 g b. 1.5394 g
   c. 1.6384 g d. 1.3384 g

12. The value of ideal gas constant in $dm^3.torr.k^{-1}.mol^{-1}$
   a. 0.0821 b. 1.98722
   c. 62.364 d. 8.3143

13. 760 torr is equal to,
   a. 760 Pascal b. 76 Pascal
   c. 101325 Pascal d. 1.01325 Pascal

14. At 50°C a gas has 1atm pressure, and 20dm^3 volume, its volume at STP wo be
   a. 16.94dm^3 b. 10.92dm
   c. 3.66dm^3 d. 42.2 dm

15. Which of the following gases will have the fastest effusion rate?
   a. CH_4 b. NH_3 c. CO_2 d. O_2

Short Questions