

## ECAT Chemistry Chapter 3 Gases

| Sr | Questions   | Answers Choice   |
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| 1  | A graph b/w P and 1/V at constant temperature and number of moles is parallel to :                                      | A. Y-axis<br>B. Z-axis<br>C. X-axis<br>D. None of above  |
| 2  | The density of a gas is directly and volume at constant temperature for a gas is  | A. Isobaric<br>B. Isothermal<br>C. Isotherm<br>D. None of above  |
| 3  | Boyle's law does not fall even  | A. Temperature is extremely high<br>B. Pressure is extremely high<br>C. Mixture of gases is taken<br>D. all of above                   |
| 4  | For a gas obeying Boyle's law if pressure is doubled, the volume becomes  | A. Remains constant<br>B. Double<br>C. One half<br>D. None of above  |
| 5  | The deviation of a gas from ideal behavior is maximum at :  | A. -10°C and 5.0 atm<br>B. -10°C and 2.0 atm<br>C. 100°C and 2.0 atm<br>D. 0°C and 2.0 atm   |
| 6  | In Boyle's law which of the following pair is variable  | A. Temperature and quantity of a gas<br>B. Pressure and Volume<br>C. Volume and quantity of a gas<br>D. Pressure and quantity of a gas |
| 7  | The ratio of volume to temperature on Kelvin scale is constant according to   | A. Charle's law<br>B. Newton's law<br>C. Coulomb's law<br>D. Boyle's law   |
| 8  | All gases can be compressed by :  | A. Keeping constant pressure<br>B. Decreasing pressure<br>C. Increasing pressure<br>D. None of the above                               |
| 9  | A graph between P and 1/V at constant temperature and number moles of a gas meets the                                   | A. y-axis<br>B. x-axis<br>C. origin<br>D. none of above  |
| 10 | Which of the following is the simplest form of matter?  | A. Gaseous state<br>B. Liquid State<br>C. Solid State<br>D. All of above   |
| 11 | The relationships between volume of a given amount of gas and the prevailing conditions of temperature and pressure are | A. Charle's Law<br>B. Graham's Law<br>C. Boyle's Law<br>D. Gas Laws  |

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| 12 | The movement of gas molecules from a region of high pressure to vacuum is called   | A. Evaporation<br>B. Effusion<br>C. Conduction<br>D. Diffusion   |
| 13 | Gases of air always remain in random motion and do not settle due to :   | A. Difference in molecular masses of air gases.<br>B. Difference in partial pressure of gas molecules.<br>C. Unequal number of different gas molecules.<br>D. Elastic collision of gas molecules.  |
| 14 | The rate of diffusion of a gas is :  | A. Inversely proportional to its density<br>B. Inversely proportional to square root of its molecular mass<br>C. Directly proportional to molecular mass<br>D. Directly proportional to its density  |
| 15 | The deviation of a gas from ideal behavior is maximum at :   | A. $-10^{\circ}\text{C}$ and 5.0 atm<br>B. $-10^{\circ}\text{C}$ and 2.0 atm<br>C. 100 atm<br>D. 0 atm   |
| 16 | The order of the rate of diffusion of gases $\text{NH}_3$ , $\text{SO}_2$ , $\text{CL}_2$ , and $\text{CO}_2$ is :       | A. $\text{NH}_3 > \text{SO}_2 > \text{CL}_2 > \text{CO}_2$<br>B. $\text{NH}_3 > \text{CO}_2 > \text{SO}_2 > \text{CL}_2$<br>C. $\text{CL}_2 > \text{SO}_2 > \text{CO}_2 > \text{NH}_3$<br>D. $\text{NH}_3 > \text{CO}_2 > \text{CL}_2 > \text{SO}_2$ |
| 17 | Boyle's law doesn't fail even :  | A. Temperature is extremely high<br>B. Pressure is extremely high<br>C. Mixture of gas is taken<br>D. All of above   |
| 18 | Gases exert pressure on walls of container because the gas molecules :   | A. Obey gas laws.<br>B. Have definite volume.<br>C. Collide with the walls of container.<br>D. Collide with each other.  |
| 19 | Pressure remaining constant, at which temperature volume of gas will become twice of what it is at $0^{\circ}\text{C}$ ? | A. 546K<br>B. 200<br>C. 546K<br>D. 273K  |
| 20 | In Boyle's law which of the following pair is variable :   | A. Temperature and quantity of a gas.<br>B. Pressure and volume<br>C. Volume and quantity of a gas.<br>D. Pressure and quantity of a gas.  |