INDIAN SCHOOL NIZWA - WORKSHEET

CHEMISTRY

CH: 5 STATES OF MATTER

Name: _____ Date:_____ Class: XI Sec: ___

1. Explain the various types of intermolecular forces.
2. State the following
   i) Boyle's law
   ii) Charle's law
   iii) Gay Lussac's law
   iv) Avogadro Law
3. Represent graphically Boyle's law , Charle's law and Gay Lussac's law and name the curve obtained.
4. What is an ideal gas?
5. State Dalton's law of partial pressures.
6. Write the ideal gas equation and combined gas law.
7. What is vander Wall's equation for real gases?
8. Define critical temperature. What are critical constants?
9. What are the conditions under which a real gas show ideal behavior?
10. Define compressibility factor. How is it related to ideal gases?
11. Define the following.
    i) saturated vapour pressure
    ii) normal boiling point
    iii) standard boiling point.
12. Give reasons for the following.
    a) Temperature decreases with altitude.
    b) The size of the balloon becomes larger and larger when it ascends up into higher altitude.
    c) Liquid NH_3 bottle is cooled before opening the seal
    d) H_2 & He has Z >1
    e) Tyres of automobiles inflated to lesser pressure in summer than in winter
13. If the number of moles of a gas is doubled by keeping the temperature and pressure constant, what will happen to the volume? This is in accordance with which gas law?

14. Why are vegetables cooked with difficulty at a hill station?

15. Compressibility factor is less than one. What does it denote?

16. The vander Waals constants for two gases are follows, Which of them will be easily liquefiable and which has greater molecular size?

Gas	a	b
X	1.39	0.0391
Y	3.59	0.0427