

# CHEMISTRY NMDCAT

## PMC TOPIC WISE TEST (UNIT-3)

### TOPICS:-

#### ✓ GASES, LIQUIDS AND SOLIDS

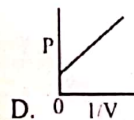
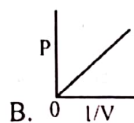
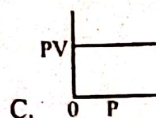
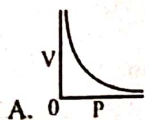
- Q.1 Aqueous solution of NaCl shows conductivity due to  
A. Free electrons  
B. Translatory motion of ions  
C. Loose packing  
D. Free electrons and ions
- Q.2 In NaCl structure, coordination number of each Cl<sup>-</sup> is  
A. 8  
B. 6  
C. 12  
D. 10
- Q.3 Solid CO<sub>2</sub> is the example of  
A. Metallic solid  
B. Molecular solid  
C. Covalent solid  
D. Ionic solid
- Q.4 Structure of ice is just like  
A. Graphite  
B. Sugar  
C. Tin  
D. Diamond
- Q.5 Which of the following effects the shape of ionic crystal  
A. Electrostatic force of attraction  
B. Poor conductivity  
C. Similar radius ratio  
D. All of these
- Q.6 Which type of solid sublime easily  
A. Ionic  
B. Covalent  
C. Molecular  
D. Metallic
- Q.7 Ionic solids have  
A. Very high m.pt  
B. Low to high m.pt  
C. Moderate to very high m.pt  
D. Low m.pt
- Q.8 Ice is \_\_\_\_\_ crystal  
A. Metallic  
B. Molecular  
C. Covalent  
D. Ionic
- Q.9 Which one is not face centered cubic structure?  
A. Iodine  
B. Diamond  
C. NaCl  
D. CsCl
- Q.10 Which of the following is the example of crystalline solid?  
A. Glass  
B. Plastic  
C. Rubber  
D. Ice
- Q.11 Lattice energy of ionic compounds  
A. Decreases with increase in size of cation  
B. Increases with increase in size of cation  
C. Increases with increase in size of either cation or anion  
D. Both "a" and "b"
- Q.12 Minimum value of lattice energy is for  
A. NaBr  
B. NaCl  
C. NaF  
D. NaI

- Q.13 When temperature of 1 mole of ideal gas increases from  $27^{\circ}\text{C}$  to  $627^{\circ}\text{C}$ , then kinetic energy increases by  
 A. 2-times  
 B. 3-times  
 C. 4-times  
 D. 6-times
- Q.14 Boiling point of liquid is  
 A. Low at higher altitude  
 B. Inversely proportional to vapor pressure  
 C. Maximum at sea level  
 D. All of these
- Q.15 Crystal formed due to London dispersion forces  
 A. Ionic  
 B. Covalent  
 C. Molecular  
 D. Metallic
- Q.16 Maximum change in vapor pressure occurs at the temperature range of  
 A.  $10-20^{\circ}\text{C}$   
 B.  $70-80^{\circ}\text{C}$   
 C.  $50-60^{\circ}\text{C}$   
 D.  $90-100^{\circ}\text{C}$
- Q.17 One of the factors on which vapour pressure of liquid depends is  
 A. Amount of liquid  
 B. Nature of liquid  
 C. Volume of container  
 D. Surface area
- Q.18 Water boils at  $69^{\circ}\text{C}$  at the top of mount Everest. The vapor pressure there is  
 A. 1489 torr  
 B. 323 torr  
 C. 760 torr  
 D. 700 torr
- Q.19 Evaporation is inversely related to  
 A. London dispersion forces  
 B. Temperature  
 C. Surface area  
 D. Both 'B' and 'C'
- Q.20 Evaporation is not \_\_\_\_\_ process  
 A. Endothermic  
 B. Exothermic  
 C. Spontaneous  
 D. Cooling
- Q.21 Molar heat of vaporization of water  
 A. 40.6 KJ/mol  
 B. 40.06 KJ/mol  
 C. 406 KJ/mol  
 D. 0.46 KJ/mol
- Q.22 Correct order of boiling point of group VA hydrides  
 A.  $\text{NH}_3 > \text{PH}_3 > \text{AsH}_3 > \text{SbH}_3$   
 B.  $\text{SbH}_3 > \text{AsH}_3 > \text{PH}_3 > \text{NH}_3$   
 C.  $\text{SbH}_3 > \text{NH}_3 > \text{PH}_3 > \text{AsH}_3$   
 D.  $\text{SbH}_3 > \text{NH}_3 > \text{AsH}_3 > \text{PH}_3$
- Q.23 Water freezes at  $0^{\circ}\text{C}$  The density of liquid  $\text{H}_2\text{O}$  is 9% \_\_\_\_\_ then the density of ice.  
 A. Higher  
 B. Lesser  
 C. None  
 D. Constant
- Q.24 Among the following hydrides, which one has lowest boiling point  
 A. HF  
 B. HI  
 C. HCl  
 D. HBr
- Q.25 Hydrogen bonding is not present in one of the following mixture  
 A. Ethanol and water  
 B. Chloroform and acetone  
 C. Carboxylic acid and water  
 D. Hydrocarbon and water
- Q.26 Which one shows highest boiling point  
 A. n-Propane  
 B. n-Pentane  
 C. Iso-pentane  
 D. Iso-propane

19  
20-  
21-C  
22-A  
23-C  
24-A



- Q.27** Force of attraction present between  $\text{H}_2\text{O}$  and  $\text{H}_2$
- A. Dipole-dipole  
B. Dipole-induced dipole  
C. Hydrogen bonding  
D. London dispersion forces
- Q.28** London dispersion forces are present between the molecules of
- A.  $\text{H}_2\text{O}$   
B.  $\text{NH}_3$   
C.  $\text{CH}_4$   
D. All of above
- Q.29** Highest boiling point among the following
- A.  $\text{NH}_3$   
B.  $\text{CH}_4$   
C.  $\text{H}_2\text{O}$   
D. HF
- Q.30** Stronger hydrogen bond is present in
- A. HF  
B.  $\text{H}_2\text{O}$   
C.  $\text{NH}_3$   
D.  $\text{CH}_4$
- Q.31** Force of attractions present between chloroform molecule
- A. Dipole -dipole  
B. Hydrogen bonding  
C. Dipole-Induced dipole  
D. Ion-dipole
- Q.32** At  $25^\circ\text{C}$ , minimum vapour pressure is for
- A. Water  
B. Isopentane  
C. Ethanol  
D. Glycerol
- Q.33** The temperature at which molecular motion of gas molecule is ceased
- A.  $-273\text{ K}$   
B.  $-459^\circ\text{F}$   
C.  $0^\circ\text{C}$   
D. All of these
- Q.34** Correct order of strength
- A. Dipole-dipole > hydrogen bonding > dipole-induced dipole > London dispersion forces  
B. London forces > dipole -induced dipole > dipole -dipole > Hydrogen bonding  
C. Hydrogen bonding > dipole - dipole > dipole - induced dipole > London forces  
D. Hydrogen bonding > London dipole forces > dipole - dipole > dipole -induced dipole
- Q.35** Vapor pressure of diethyl ether at its boiling point is equal to
- A. 0 torr  
B. 200 torr  
C. 4.8 torr  
D. 760 torr
- Q.36** Kinetic energy of gas molecule for 1 mole of gas is
- A. Proportional to absolute temperature  
B. Independent of temperature  
C. Proportional to pressure  
D. Independent of pressure
- Q.37** Maximum density of gas is for
- A. He  
B. Ne  
C.  $\text{CO}_2$   
D.  $\text{N}_2$
- Q.38** Which is not correct expression of Boyle's law





1-B

12-D

23-A

34-C

45-B

2-B

13-B

24-C

35-D

46-C

3-B

14-D

25-D

36-A

47-B

4-D

15-C

26-B

37-C

48-C

5-D

16-D

27-B

38-D

49-D

6-C

17-B

28-D

39-A

50-A

7-C

18-B

29-C

40-D

8-B

19-A

30-A

41-B

9-D

20-B

31-A

42-A

10-D

21-A

32-D

43-A

11-A

22-D

33-B

44-B