

MDCAT Chemistry Online Test

Sr	Questions	Answers Choice
1	The geometry of diamonds is	A. tetragonal B. cubic C. rhombohedral D. none of these
2	The molecules of CO ₂ , in dry ice form the	A. covalent crystals B. molecular crystals C. none of these crystals D. ionic crystals
3	The nature of crystal of diamond is	A. metallic B. molecular C. covalent D. ionic
4	The crystals formed due to London forces of interaction are	A. ionic B. covalent C. molecular D. metallic
5	In most of the cases the molecular crystals are	A. very soft B. soft C. extremely hard D. sufficiently hard
6	The crystal of diamond is	A. ionic B. molecular C. covalent D. metallic
7	Substance that does not show the process of sublimation is	A. K ₂ Cr ₂ O ₇ B. iodine C. naphthalene D. NH ₄ Cl
8	The number of Na ⁺ , ions which surround each Cl ⁻ ion in the NaCl crystal lattice is	A. 8 B. 12 C. 6 D. 10
9	NaCl has face centered cubic structure. The Na ion at the face of the unit cell is shared by	A. 2-unit cells B. 4-units cells C. only one unit cell D. 8-unit cells
10	The Cl ⁻ ion present at the corner of the unit cell is NaCl crystal, contributes	A. 1/8 th B. 1/4 th C. 1/2 th D. 1
11	The number of Cl ⁻ ions per unit cell of NaCl are	A. 6 B. 4 C. 2 D. 8
12	Ionic solids don't conduct the electrical current because	A. ion do not have translatory motion B. free electrons are less C. the coordination number of the ion is very high D. strong covalent bonds are present in their structure
13	Ionic solids are characterized by which one of the following properties	A. moderately low pressure B. high vapour pressure C. good conductivity in solid state D. solubility in polar solvents
14	Some of crystals are good conductors of heat and electricity, they may be	A. ionic in nature B. of metallic character C. covalent in nature D. of molecular nature
15	LiF is a crystalline substance and has	A. ionic crystal B. metallic crystal C. covalent crystal

		D. molecular crystal
16	One of the following is a ionic solid. Which is that?	A. Fe B. KBr C. Diamond D. Cr
17	An element from the given below exists as discrete small molecules in the solid state. Which is that?	A. Sodium B. Silicon C. Iodine D. Iron
18	The structure of sodium chloride is	A. simple cube B. body centered cubic C. face centered cubic D. depends upon conditions
19	Which property is associated with ionic solids?	A. Solubility in polar solvents B. Low melting points C. Good conductivity in solid state D. High vapour pressure
20	In crystal of sodium chloride, a Cl-1 ion present at the corner of cube is shared between how many cubes?	A. 8 B. 4 C. 6 D. 10
21	What is the co-ordination number of face centered cubic structure?	A. 12 B. 8 C. 6 D. 10
22	A crystal system in which all three angles and all three edges are different is called	A. triclinic B. rhombohedral C. cubic D. hexagonal
23	Structure of CrO_4^{2-} is	A. triclinic B. cubic C. octahedral D. tetrahedral
24	The most unsymmetrical one in crystal system is	A. triclinic B. Li, Na, K C. monoclinic D. hexagonal
25	The hexagonal closed packing is associated with	A. Ag, Cu, Au B. Zn, Cd, Hg C. Li, Na, K D. NaCl, KBr
26	Which impurity makes the shape of NaCl crystal needle like	A. MgSO_4 B. urea C. glucose D. MgCO_3
27	K_2SO_4 , and $\text{K}_2\text{Cr}_2\text{O}_4$, are isomorphous solids and exist in	A. cubic form B. orthorhombic form C. trigonal form D. tetragonal
28	The transition temperature of tin is	A. 95.5°C B. 13.2°C C. 13.2°C D. 128.5°
29	The existence of an element in more than one form is called	A. allotropy B. isomorphism C. polymorphism D. isotropy
30	The transition temperature of KNO_3 , is	A. 13.2°C B. 95.5°C C. 128°C D. 32.02°C
31	Polymorphism is shown by AgNO_3 . Which one of the following options is true for AgNO_3 ?	A. Orthorhombic and rhombohedral B. Cubic and orthorhombic C. Cubic and tetragonal D. Monoclinic and hexagonal
32	Which one is an isomorphic pair?	A. NaNO_3 , CaCO_3 , B. NaF, MgO C. K_2SO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$ D. Zn, Cd
		A. sugar B. graphite(=h not equal to c)

33	The examples of a hexagonal system is	<p>B. graphite ($\alpha \neq \beta$ not equal to γ) {Alpha =beta. not equal to gamma} C. sulphur D. diamond</p>
34	In diamond, the carbon atoms are arranged in a	<p>A. tetrahedral manner B. hexagonal manner C. square planar manner D. octahedral manner</p>
35	Hardness of diamond is attributed to the	<p>A. strength of the ionic bonds in the structure B. three-dimensional network of covalent bonds C. three-dimensional network of covalent bonds D. absence of valence electrons in carbon atoms</p>
36	How many allotropic forms are present in carbon?	<p>A. Two B. Four C. Three D. Five</p>
37	Which among the following will show anisotropy?	<p>A. Wood B. Glass C. Paper D. BeCl₂</p>
38	Crystals can be classified into	<p>A. 7 crystal systems B. 4 crystal systems C. 3 crystal systems D. 14 crystal systems</p>
39	Glycerine is a polar compound. It boils at 290°C under one atmospheric pressure. It should be distilled under reduced pressure due to reason that	<p>A. there are strong intermolecular forces between molecules of glycerine B. it decomposes at 290°C C. low pressure makes the liquid to boil at high temperature D. the reduced pressure decreases the boiling point of liquids</p>
40	To cook the food at a high mountain is difficult as compared to at sea level. The reason is that:	<p>A. the temperature at the top of the mountain is low B. the density of water decreases at the mountains C. the boiling point of water decreases at the mountain D. the hydrogen bonding in water changes with the change of height</p>
41	CO ₂ and SO ₂ are both triatomic molecules, but heat of vaporization of SO ₂ is greater than that of CO ₂ . This is due to	<p>A. greater electronegative character of sulphur B. greater size of SO₂ molecule C. SO₂ is polar and CO₂ is non-polar D. SO₂ is more acidic in nature than CO₂</p>
42	The value of the vapour pressure of water at its boiling point at Karachi and Murree is	<p>A. same B. different C. depends upon the environmental conditions in both cities D. greater at Murree and less at Karachi</p>
43	Evaporation occurs at all temperatures and is effected by	<p>A. surface area B. temperature C. intermolecular forces D. all of these</p>
44	What s the boling point of H ₂ O at the peak of Mount Everest?	<p>A. 101 C° B. 69°C C. 100 C° D. 98° C</p>
45	The hydrocarbon with maximum B.P is	<p>A. CH₄ B. C₆H₁₄ C. C₄H₁₀ D. C₂H₆</p>
46	Point out that which is not an application of liquid crystals?	<p>A. Source of energy B. In display of electrical devices C. For skin thermography D. As temperature sensor</p>
47	Which of the following is not the property of liquid crystal	<p>A. anisotropic B. isotropic</p>

47	Which of the following is not the property of liquid crystal?	C. three dimensional arrangement D. fluidity
48	Cholesteryl benzoate turns into milky liquid at	A. 140°C B. 145°C C. 148°C D. 149°C
49	Water may boil at 120 °C when external pressure is:	A. 100 mm of Hg B. 700 mm of Hg C. 760 mm of Hg D. 1489 mm of Hg
50	The B.P of H ₂ O at Murree Hills is	A. 99.8C B. 98°C C. 100C° D. 89°C
51	Amount of heat absorbed when one mole of a solid melts into liquid form at its melting point is called:	A. heat of vaporization B. latent heat of fusion C. molar heat of fusion D. molar heat of sublimation
52	The boiling point of glycerin at 1 atmospheric pressure is:	A. 290°C B. 390°C C. 190C° D. 210°C
53	In order to maintain the boiling point of water at 110 C°, the external pressure should be	A. 550 torr B. between 500 and 760 tor C. between 760 and 1500 torr D. any pressure can be maintained
54	Which of following factor affect vapour pressure of a liquid?	A. temperature B. inter molecules forces C. size of the molecules D. all of these
55	The boiling of water may be 120°C, when the external pressure is	A. greater than 760 torr B. less than 760 torr C. equal to 760 torr D. variable
56	Liquids evaporate at every temperature. When the temperature becomes constant for a liquid, then:	A. rate of evaporation is greater than the rate of condensation B. the rate of condensation is greater than the rate of evaporation C. The rate of condensation and evaporation become equal D. it depends upon the nature of the liquid
57	Point out the substance which has maximum vapour pressure at a given temperature?	A. Acetone B. Water C. Ethanol D. Acetic acid
58	Vapour pressure of a substance does not depend upon:	A. physical state of matter B. temperature C. intermolecular forces D. surface area
59	Which of the following liquid has highest boiling point	A. HCl B. HBr C. H ₂ O D. Br ₂
60	The B.P. of compound is mostly raised by	A. dipole-induced dipole interactions B. london dispersion forces C. intramolecular H-bonding D. intermolecular H-bonding