

MDCAT Chemistry Chapter 5 Solids Online Test

Sr	Questions	Answers Choice
1	Which attractive forces cause molecular solids to be formed?	A. Ionic B. Metallic C. Covalent D. van der Waals
2	Which one is an isomorphous pair?	A. NaNO ₃ , CaCO ₃ , B. NaF, MgO C. K ₂ SO ₄ , K ₂ Cr ₂ O ₇ D. Zn, Cd
3	The hexagonal closed packing is associated with	A. Ag, Cu, Au B. Zn, Cd, Hg C. Li, Na, K D. NaCl, KBr
4	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
5	Structure of CrO ₄ ⁽⁻²⁾ is'	A. triclinic B. cubic C. octahedral D. tetrahedral
6	Hardness of diamond is attributed to the	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
7	Which impurity makes the shape of NaCl crystal needle like	A. MgSO ₄ B. urea C. glucose D. MgCO ₃
8	One of the following is a ionic solid. Which is that?	A. Fe B. KBr C. Diamond D. Cr
9	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
10	In most of the cases the molecular crystals are	A. very soft B. soft C. extremely hard D. sufficiently hard
11	The crystal of diamond is	A. ionic B. molecular C. covalent D. metallic
12	K ₂ SO ₄ , and K ₂ Cr ₂ O ₄ , are isomorphous solids and exist in	A. cubic form B. orthorhombic form C. trigonal form D. tetragonal
13	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
14	In crystal of sodium chloride, a Cl ⁻ ion present at the corner of cube is shared between how many cubes?	A. 8 B. 4 C. 6 D. 10

15	In diamond, the carbon atoms are arranged in a	A. tetrahedral manner B. hexagonal manner C. square planar manner D. octahedral manner
16	The examples of a hexagonal system is	A. sugar B. graphite(a=b not equal to c) {Alpha =beta. not equal to gamma} C. sulphur D. diamond
17	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
18	The electrical conductivity of the metals decreases with the increasing temperature. This is because	A. the number of free electrons decrease B. the bonds of the metal atoms become weak C. the to and fro motion of the metal ions decrease D. the increase of to and fro motion of the metal ions hinders the free movement of electrons
19	Amorphous means	A. arranged B. ordered C. shaped D. shapeless (no arrangements)
20	Which of the following solids does not have a covalent bond?	A. Silica B. Copper C. Diamond D. Graphite
21	In diamond, which hybridization is there?	A. sp ² B. dsp ² C. sp ³ D. sp
22	The geometry of diamonds is	A. tetragonal B. cubic C. rhombohedral D. none of these
23	The number of Cl ⁻ ions per unit cell of NaCl are	A. 6 B. 4 C. 2 D. 8
24	Which among the following will show anisotropy?	A. Wood B. Glass C. Paper D. BeCl ₂
25	Crystals can be classified into	A. 7 crystal systems B. 4 crystal systems C. 3 crystal systems D. 14 crystal systems
26	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
27	The transition temperature of KNO ₃ , is	A. 13.2°C B. 95.5°C C. 128°C D. 32.02°C
28	The existence of an element in more than one form is called	A. allotropy B. isomorphism C. polymorphism D. isotropy
29	The structure of sodium chloride is	A. simple cube B. body centered cubic C. face centered cubic D. depends upon conditions
30	The nature of crystal of diamond is	A. metallic B. molecular C. covalent D. ionic
31	The transition temperature of tin is	A. 95.5 C° B. 13.2 C° C. 13.2°C

		C. 128.5° D. 128.5°
32	All the metal shine when they are freshly cut The reason is	A. the conductivity of the metal is increased B. the process of cutting gives energy to the metal atoms C. the electrons become less delocalized according to valance bond theory D. the electrons are excited at higher energy levels and emit the photons when they fall back
33	The molecules of CO ₂ , in dry ice form the	A. covalent crystals B. molecular crystals C. none of these crystals D. ionic crystals
34	The crystals formed due to London forces of interaction are	A. ionic B. covalent C. molecular D. metallic
35	How many allotropic forms are present in carbon?	A. Two B. Four C. Three D. Five
36	A crystal system in which all three angles and all three edges are different is called	A. triclinic B. rhombohedral C. cubic D. hexagonal
37	Metallic bonds have been explained by many theories. Luis Pauling has proposed a theory called	A. molecular orbital theory B. electron gas theory C. band theory D. valence bond theory
38	LiF is a crystalline substance and has	A. ionic crystal B. metallic crystal C. covalent crystal D. molecular crystal
39	How temperature affects the electrical conductivity of metals?	A. Does not change at all B. Decreases with increasing temperature C. Increases with increasing temperature D. Decreases with decreasing temperature
40	Plastics are amorphous solids and	A. have sharp melting points B. undergo clean cleavage when cut with knife C. do not undergo clean cleavage D. possess orderly arrangement over long distances
41	The arrangement ABC, ABC is referred as	A. cubic close packing B. octahedral close packing C. hexagonal close packing D. tetrahedral close packing
42	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
43	What is the co-ordination number of face centered cubic structure?	A. 12 B. 8 C. 6 D. 10
44	The most unsymmetrical one in crystal system is	A. triclinic B. Li, Na, K C. monoclinic D. hexagonal
45	The number of Na ⁺ , ions which surround each Cl ⁻ ion in the NaCl crystal lattice is	A. 8 B. 12 C. 6 D. 10
46	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

47 in diamond a unit cell is tetrahedral and overall crystal structure is

- A. face centred cubic
- B. body centred cubic
- C. tetrahedral
- D. hexagonal

48 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

49 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