

ECAT Physics Chapter 17 Physics of Solids

Sr	Questions	Answers Choice
1	In crystalline solids, atoms are held about their equilibrium positions depending upon the strength of:	A. Adhesive force B. Nuclear forces C. Inter atomic cohesive force D. Electromagnetic force E. None of these
2	The substances in which, atom are so oriented that their fields support each other and the atoms behave like tiny magnets, are called	A. diamagnetic substances B. ferromagnetic substances C. paramagnetic substances D. all of them
3	In metallic crystals which of the following thing remains constant	A. amplitude of oscillations B. temperature of solid C. average atomic positions D. all of them
4	The arrangement or molecules or atoms in a crystalline solid can be studied by using:	A. Chemical methods B. Neutrons C. X-ray techniques D. Copper atoms E. Both (A) and (B)
5	Under the elastic region, the deformation produced in the material, the deformation produced in the material will be	A. permanent B. temporary C. either of them D. none of them
6	The cohesive forces between atoms, molecules or ions in crystalline solids maintain the strict	A. short range order B. long range order C. both of them D. none of them
7	The critical temperature of tin is	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
8	The materials in which there are plenty of free electrons for electrical conduction are known as	A. conductors B. insulators C. semi-conductors D. all of them
9	The temperature at which the vibrations become so great that structure of the Crystal breaks up, is called:	A. Critical temperature B. Temperature of vaporization C. Melting point D. Both (A) and (C) E. Both (A) and (B)
10	Glass and high carbon steel are the examples of	A. brittle substances B. ductile substances C. plastic substances D. elastic substances
11	Experiments revealed that the ratio of the stress to the strain is a constant value for	A. different material B. all materials C. a given material D. all of them
12	Whenever a covalent bond is broken in an intrinsic semi-conductor	A. hole is created B. an electron is created C. an electron-hole pair is generated D. all of them
13	Crystalline solids are in the form of:	A. Metals B. Ionic Compounds C. Ceramics D. Both (A) and (B) E. All of these
14	The substance in which atoms cooperate with each other in such a way so as to exhibit a strong magnetic effect, are called	A. diamagnetic substances B. ferromagnetic substances C. paramagnetic substances D. all of them

15	The substance in which atoms are so oriented that the field produced by spin and orbital motion of the electrons might add up to zero, are called	A. diamagnetic substances B. ferromagnetic substances C. paramagnetic substances D. all of them
16	Any superconductor with critical temperature above 77 K, is referred as	A. low temperature superconductor B. high temperature superconductor C. very low temperature superconductor D. none of them
17	In case of the three dimensional deformation, when volume is involved, the ratio of applied stress to volumetric strain is called	A. Young's modulus B. Bulk modulus C. Shear modulus D. all of them
18	In the phenomenon of hysteresis	A. magnetism leads the magnetising current B. magnetism lags behind the magnetising current C. magnetism goes along the magnetising current D. none of them
19	A structure of polymeric solid is:	A. An ordered structure B. A disordered structure C. Intermediate between order and disorder D. Any of these E. None of these
20	The band above the valence band is called	A. high energy band B. conduction band C. empty band D. none of them