ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Within each domain, the magnetic field of all the spinning electrons are	A. parallel B. antiparallel C. perpendicular D. all of them
2	The size of the domain is such that they can contain	A. 10²to 10⁴atoms B. 10⁴ to 10⁸atoms C. 10⁸to 10¹²atoms D. 10¹²to 10¹⁶atoms
3	The domains are of macroscopic size of the order of	A. centimeters B. meters C. millimeters D. nanomneters
4	Recent studies of ferromagnetism have shown that there exists in ferromagnetic substances small regions called	A. tiny regions B. domains C. vectors D. none of them
5	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
6	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
7	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
8	The charged nucleus of an atom itself spins its magnetic field	A. equal to the field produced by orbital electrons B. greater than the field produced by orbital electrons C. much weaker than the field produced by orbital electrons D. none of these
9	An atom in which there is a resultant magnetic field, behaves like a tiny magnet and is called as	A. magnetic B. magnetic dipole C. magnetic monopole D. none of them
10	The magnetism produced by electrons within an atom can arise from	A. electrons orbiting the nucleus B. electrons posses a spin C. both motions D. none of these motions
11	Recently a complex crystalline structure known as Yetrium Barium Copper Oxide have been reported to become superconductor at	A. 125 K B. 25 K C. 263 K D. 163 K
12	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
13	The critical temperature of tin is	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
14	The critical temperature of aluminium is	A. 1.18 K B. 4.2 K

		C. 3.72 K D. 7.2 K
15	The critical temperature of mercury is	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
16	The first super conductor was discovered in	A. 1811 B. 1890 C. 1901 D. 1911
17	There are some whose resistivity becomes zero below a certain temperature, called	A. absolute zero B. 0°C C. critical temperature D. lower fixed point
18	In a semi-conductor material, the total current is	A. only the +ve current B. only the electronic current C. sum of +ve and electronic current D. all of them
19	In a semi-conductor material, current flows due to	A. positive charge B. negative charge C. both of them D. none of them
20	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
21	When a silicon crystal is doped with a pentavalent element, then the atom of the pentavalent element is known as	A. acceptor B. donor C. either of them D. none of them
22	When a silicon crystal is doped with a pentavalent element, such an extrinsic semi-conductor is called	A. p-type semi-conductor B. n-type semi-conductor C. either of them D. none of them
23	Arsenic, antimony and phosphorus are the elements from	A. third group B. fourth group C. fifth group D. none of them
24	The bonding between the semi-conductor materials is	A. covalent B. ionic C. either of them D. none of them
25	Semi-conductor elements have atoms with	A. 2 valence electrons B. 3 valence electrons C. 4 valence electrons D. 5 valence electrons
26	The doped semi-conductor materials are known as	A. intrinsic semi-conductor B. extrinsic semi-conductor C. either of them D. none of them
27	In the doping process, the ratio of the doping atoms to the semi conductor atom is	A. 1 to 10 B. 1 to 10³ C. 1 to 10⁶ D. 1 to 10⁹
28	When small number of atoms from some other suitable element is added to the semi-conductor material, then this process is known as	A. impurification B. adding C. doping D. extrinsivity
29	Which type of wave can be set up in solids	A. longitudinal waves B. transverse waves C. both of them D. none of them
30	The waves in which the particles of the medium have displacement along the direction of propagation of waves are called	A. longitudinal waves B. transverse waves C. non-mechanical waves D. none of them