ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Semi-conductor elements have atoms with	A. 2 valence electrons B. 3 valence electrons C. 4 valence electrons D. 5 valence electrons
2	An example of photoconductor is:	A. Boron<o:p></o:p> B. Carbon<o:p></o:p> C. Iron<o:p></o:p> D. Aluminum<o:p></o:p> E. Selenium<o:p></o:p>
3	The whole structure obtained by the repetition of unit cells is called:	A. Crystal lattice B. Amorphous solid C. Polymeric solid D. Polysterne E. None of these
4	An emf is set up in a conductor when it:	A. is kept in a magnetic field B. is kept in a electric field C. Move across a magnetic field D. Both (A) and (B) E. None of these
5	Hydrogen and helium of same volume V at same temperature T and same pressure P are mixed to have same volume V. The resulting pressure of the mixtures will be	A. R/2 B. P C. 2P D. Depending on the relative mass of the gases
6	A process which can be retraced in exactly reverse order, without producing any change in the surroundings is called	A. reversible process B. irreversible process C. any one of them D. none of them
7	According to Stoke's law, drag force depends on	A. Initial velocity B. Final velocity C. Terminal velocity D. Instantaneous velocity
8	When weight of an object falling freely becomes equal to the drag force, then the body will move with	A. increasing speed B. decreasing speed C. constant speed D. none of them
9	In a moving coil galvanometer, the deflecting couple depends upon	A. area of the coil B. number of turns of coil C. value of magnetic field D. all of the above
10	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
11	A rheostat can e used:	A. As variable resistor B. As potential divider C. For varying the current

11	A rheostat can e used:	C. For varying the current D. All of these E. None of these
12	The device which can convert heat energy into electrical energy is called:	A. Thermistor<o:p> </o:p> B. Thermometer<o:p> </o:p> C. Thermostat<o:p> </o:p> D. Thermocouple<o:p></o:p> E. Both (C) and (D) <o:p></o:p>
13	The length of a metallic rod is 5 meter at 100°C. The coefficient of cubical expansion of the metal will be	A. 2.0 x 10⁻⁵/°C B. 4.0x10⁻⁵/°C C. 6.0x10⁻⁵/°C D. 2.33x10⁻⁵/°C
14	What is frequency of radio waves transmitted by a station, if the wavelength of those waves is 300 m?	A. 1 MHz B. 10 Hz C. 1 GHz D. 100000 Hz
15	Example of progressive wave is	A. transverse waves B. longitudinal waves C. both of them D. none of them
16	A metal road of length 1m is moving at a speed of 1 ms^{-1}In a direction making angle of 30° with 0.5 Y magnetic field. The emf produced in the rod is:	A. 0.25 N B. 0.25 V C. 2.5 V D. 2.5 N E. 25 V
17	Blood has a density	A. Equal to water B. Greater then water C. Lesser then water D. None of these
18	An aircraft is moving with a velocity of 300 ms^{-1}. If all the forces acting on it are balanced, then	A. It still moves with the same velocity B. It will be just floating at the same point in space C. It will be fall down instantaneously D. It will lose its velocity gradually
19	Micheal Faraday and joseph Henry belong respectively to:	A. USA and England B. England and France C. England and USA D. USA and France E. None of these
20	An airplane is flying horizontally with a velocity of 600 km/h and at a height of 1960 m. When it is vertically above a point A on the ground, a bomb is released from it. The bomb strikes the ground, at point B. The distance AB is	A. 1200 m B. 0.33 km C. 3.33 km D. 33 km