

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	A current carrying conductor sets up its own:	<p>A. <span style="font-size: 12pt;">Electric field</span></p> <p>B. <span style="font-size: 12pt;">Nuclear field</span></p> <p>C. <span style="font-size: 12pt;">Magnetic field</span></p> <p>D. <span style="font-size: 12pt;">Both (A) and (C)</span></p> <p>E. All of these</p>
2	Inverter is the name given to:	<p>A. NOT gate</p> <p>B. OR gate</p> <p>C. NOR gate</p> <p>D. AND gate</p> <p>E. XOR gate</p>
3	A signal is amplified at the output without any change of phase, if it is applied at the	<p>A. inverting input</p> <p>B. non-inverting input</p> <p>C. at any of the input</p> <p>D. none of these</p>
4	A transistor has:	<p>A. One region</p> <p>B. Two regions</p> <p>C. Three regions</p> <p>D. Four regions</p> <p>E. None is correct</p>
5	When certain area A is held parallel to the field lines, then:	<p>A. <span style="font-size: 12pt;">No lines cross this area</span></p> <p>B. <span style="font-size: 12pt;">Maximum lines pass through this area</span></p> <p>C. <span style="font-size: 12pt;">The number of lines are between zero and maximum</span></p> <p>D. <span style="font-size: 12pt;">Both (A) and (B) correct</span></p> <p>E. <span style="font-size: 12pt;">None of these</span></p>
6	When the mass of the colliding body is much larger than the mass of the body at rest, its velocity after collision.	<p>A. Becomes half</p> <p>B. Becomes zero</p> <p>C. Remains same</p> <p>D. Becomes double</p>

7	The work is stored in the inductor as	A. Electric potential energy B. Elastic potential energy C. Magnetic energy D. Absolute potential energy
8	A proton is about 1840 times heavier than an electron. When it is accelerated by a potential difference of 1 KV, its kinetic energy will be	A. 1840 KeV B. 1/1840 KeV C. 1 KeV D. 920 KeV
9	When quarter of a circle is completed, the phase of vibration is:	A. $90^\circ$ B. $180^\circ$ C. $45^\circ$ D. $360^\circ$
10	Silicon can be obtained from:	A. Lead B. Uranium C. An isotope of oxygen D. Sand
11	In a semi-conductor material, current flows due to	A. positive charge B. negative charge C. both of them D. none of them
12	In the theory of dimensional analysis, heat may be properly represented by:	A. $ML^2T^{-2}$ B. $MT^{-2}$ C. $ML^{-1}T^{-1}$ D. None of these
13	In the compton's effect, it is found that the wavelength of incident x-rays is	A. greater than the wavelength of scattered x-rays B. equal to the wavelength of scattered x-rays C. less than the wavelength of scattered x-rays D. any one of these
14	If a liquid is heated in weightlessness, the heat is transmitted through	A. Conduction B. Convection C. Radiation D. Neither, because the liquid cannot be heated in weightlessness
15	A semi-conductor in its extremely pure form is known as	A. extrinsic semi-conductor B. intrinsic semi-conductor C. either of them D. none of them
16	In YDS experiment, fringe spacing means the distance between two consecutive _____ fringes	A. Bright B. Dark C. Any of A or B D. None of these
17	A mixture of two gases at constant temperature contains molecules of two kinds. The first kind of mass $m_1$ and rms speed $c_1$ and the second molecule has mass $m_2$ and rms speed $c_2$ , the ration $c_1/c_2$ is.	A. $m_1/m_2$ B. $[m_1/m_2]^{1/2}$ C. $m_2/m_1$ D. $[m_2/m_1]^{1/2}$
18	The effect of applying a force on a moving body is to change	A. its direction of motion only B. its speed of motion only C. both the direction and speed of motion D. its inertia only
	A body walks to his school at a distance of 6 km with a speed of 2.5 km/h and walks	A. 24/13

19 A body walks to his school at a distance of 5 km with a speed of 2.5 km/h and walks back with a constant speed of 5 km/h. His average speed for round trip expressed in km/h is

- B. 10/3
- C. 3
- D. 4,8

20 If we increase the length of a simple pendulum four times, its time period will become

- A. 2 times
- B. 3 times
- C. 4 times
- D. 6 times