

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Gas constant per molecule is called:	A. Universal gas constant B. Stefan's constant C. Boltzmann constant D. Gravitation constant
2	The time of flight of a projectile motion equal to	A. half of the time to reach maximum height B. twice the time to reach maximum height C. one fourth of time to reach maximum height D. time to reach maximum height
3	The results of mechanical tests are usually expressed in terms of	A. stress B. strain C. stress and strain D. neither stress nor strain
4	When a positron comes close to an electron they annihilate into photons such that	A. each photon has energy 0.51 Mev B. each photon has energy 1.02 Mev C. each photon has energy 0.25 Mev D. none of these
5	If the mass of the simple pendulum becomes double, its time period	A. increase B. decreases C. remains constant D. none of them
6	The magnitude of the force producing an acceleration of 10 m/sec <sup>2</sup> in a body of mass 500 grams is:	A. 3 N B. 4 N C. 5 N D. 6 N
7	A body walks to his school at a distance of 6 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	A. 24/13 B. 10/3 C. 3 D. 4.8
8	When relatively simple molecules are chemically combined into massive molecules, the reaction is called:	A. Fission reaction B. Fusion reaction C. Polymerization D. Any of these E. None of these
9	Mass of proton is	A. $1.67 \times 10^{-27}$ kg B. $1.67 \times 10^{-31}$ kg C. $1.66 \times 10^{-34}$ kg D. $1.67 \times 10^{-17}$ kg
10	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force D. Frictional force
11	The heat required to raise the temperature of one mole of the substance through 1 K is called	A. heat capacity B. specific heat capacity C. molar specific heat D. all of them
12	A stone is dropped from rest from the top of a tower 19.6 m high. The distance traveled during the last second of its fall is (giving $g=9.8 \text{ m/s}^2$ )	A. 9.8 m B. 14.7 m C. 4.9 m D. 19.6 m
13	Magnetic effect at a point caused due to flow a current depend upon the	A. Quantity of current B. Distance from current C. Both the quantity of current and distance from current element D. None of the all
14	The waves which propagate out in space due to oscillation of electric and magnetic fields are	A. e.m. waves B. mechanical waves

	known as	C. sound waves D. water waves
15	The stopping voltage for a certain metal is 100 volts, then the work function for the cathode plate is	A. 100 J B. $1.6 \times 10^{-17}$ J C. 100 eV D. $1.6 \times 10^{-17}$ eV
16	A massive object falls through a fluid:	A. Faster B. Slower C. Slowest D. None
17	A galvanometer in which the coil comes to rest quickly after the current passed through it, or the current stopped from flowing through it, is called	A. dead beat galvanometer B. stable galvanometer C. shunt galvanometer D. sensitive galvanometer
18	Which one of the following is dimensionless.	A. Acceleration B. Velocity C. Density D. Angle
19	When a platinum wire is heated, it appears yellow at	A. 1600°C B. 900°C C. 1100°C D. 1300°C
20	The resistance of a conductor does not depend on its	A. mass B. resistivity C. length D. cross-sectional area