

ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Mass of proton is	A. 1.67×10^{-27} kg B. 1.67×10^{-31} kg C. 1.66×10^{-34} kg D. 1.67×10^{-17} kg
2	Which of the following quantities remain constant in step up transformer?	A. Current B. Voltage C. Power D. Heat
3	As the bob of the pendulum moves to and fro which of the force is experienced by the bob	A. its weight B. tension in the string C. viscous drag force by air D. all of them
4	The force acting on a charge moving in a magnetic field	A. is perpendicular to the both magnetic field and direction of motion B. is proportional to the magnetic of charges C. vanishes when the motion is directly opposite to the direction of field D. all of the above
5	An isochoric process is one which take place at	A. Constant internal energy B. Constant entropy C. Constant volume D. Constant pressure
6	If the stress increased beyond the elastic limit of the material. the deformation produced in the material will be	A. permanent B. temporary C. either of them D. none of them
7	If we increase the distance between two plates of the capacitor, the capacitance will	A. Increase B. Decrease C. Remain same D. First increase then decrease
8	A gas which strictly obeys the gas laws under all conditions of temperature and pressure is called:	A. Ideal gas B. Inert gas C. Real gas D. None of these
9	In the study of thermodynamics, which gas is considered as the working substance	A. real gas B. ideal gas C. any gas may be ideal or real D. none of them
10	1 amu is equal to.	A. 1.66×10^{-24} kg B. 1.66×10^{-19} kg C. 1.66×10^{-24} kg D. 1.66×10^{-27} kg
11	When a mass 'm' is pulled slowly, the spring stretches by an amount x_0 , then the average force would be	A. $F = Kx_0$ B. $F = \frac{1}{2}Kx_0$ C. $F = 2Kx_0$ D. $F = 4Kx_0$
12	When the pn-junction is forward biased. the current flows through it is of the order of	A. milli-amperes B. amperes C. nano-amperes D. micro-amperes
13	The kinetic energy of one molecule of a gas at normal temperature and pressure will be ($k = 8.31 \text{ J/mole K}$) :	A. 1.7×10^3 J B. 10.2×10^3 J C. 3.4×10^3 J D. 6.8×10^3 J
14	If 250V is the RMS value of alternative voltage, then its peak value V_0 will be:	A. 353.5V B. 250V C. 175V D. zero E. 400V

15	The ideal gas law is	A. $P = nRT$ B. $V = nRT$ C. $PV = RT$ D. $PV = nRT$
16	Chock consumes externally small	A. Charge B. Current C. Power D. Potential
17	There is no way to detect:	A. Absolute uniform motion B. Accelerated motion C. State rest D. State of motion E. None of these
18	The e/m of an electron moving in a circular path in a magnetic field is equal to	A. V/Br B. $V/B^2 r^2$ C. V^2/Br^2 D. V^2/Br
19	The transition from solid state to liquid state is:	A. Abrupt B. Slow C. Continuous D. Discontinuous E. Both (A) and (D)
20	The number of different crystals systems based on the geometrical arrangement of their atoms and the resultant geometrical structure are	A. 5 B. 7 C. 9 D. 14