

ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Two bodies of masses 1 kg and 5 kg are dropped gently from the top of a tower. At a point 20 cm from the ground both the bodies will have the same	A. Momentum B. Kinetic energy C. Velocity D. Total energy
2	The absolute temperature of the triple point of water is	A. 100°C B. 4°C C. 373 K D. 273.16 K
3	Wien's constant is measured in:	A. Metre per kelvin B. Metre kelvin C. Kelvin per meter D. Joules E. Dynes
4	In the reverse process, the working substance passes through the same stages as in the direct process and	A. thermal effects at each stage are exactly reversed B. mechanical effects at each stage are exactly reversed C. thermal and mechanical effects at each stage remain the same D. thermal and mechanical effects at each stage are exactly reversed
5	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
6	Which one of the following has larger value of relative permittivity ϵ_r at room temperature?	A. Vacuum B. Air C. Glass D. Water
7	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
8	Bernoulli's equation is the fundamental equation in fluid dynamics, which relates pressure to fluid	A. speed B. height C. none of them D. both of them
9	Which of the following substances has got positive temperature coefficient of resistance?	A. Carbon B. Germanium C. Silicon D. Aluminium E. None of these
10	In a normal healthy person the value of diastolic pressure is	A. 75 - 80 torr B. 100 torr C. 120 torr D. none of them
11	The force exerted by the fluid in a hydraulic pump on the piston is 10 cm^2 , the fluid pressure on the piston is, in N/cm^2	A. 20 B. 200 C. 2000 D. 20,000
12	Two conductors having the same type of charges are connected by a conducting wire. There would not be any amount of charges on them if	A. They have the same potential B. They have the same amount of charge C. They have the same capacity D. They have the same shape
13	The excess (equal in number) of electrons that must be placed on each of two small spheres spaced 3 cm apart, with force of repulsion between the spheres to be 10^{-19}N , is	A. 25 B. 225 C. 625 D. 1250

14	When either L or C is increased, the resonant frequency of the RLC series circuit	A. Increases B. Decreases C. Remains the same D. Becomes zero
15	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
16	If v is the velocity of flow of liquid through a tube of area of cross-section A , then according to equation of continuity	A. $v/A = \text{constant}$ B. $A/v = \text{constant}$ C. $Av = \text{constant}$ D. None
17	When a constant potential difference is applied across the conductor, the drift velocity of electrons:	A. Increases B. Decreases C. Remains the same D. Becomes zero
18	In the stress-strain graph, stress is increased linearly with strain until a point is reached, this point is known as	A. plastic limit B. plastic deformation C. proportional limit D. elastic behaviour
19	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
20	Force acting upon a charged particle kept between the plates of a charged condenser is F . If one of the plates of the condenser is removed, force acting on the same will become	A. Zero B. $F/2$ C. F D. $2F$