

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	On heating, glass gradually softens into a paste like before it becomes a very viscous liquid at almost	<p>A. 600</p> <p>B. 7600</p> <p><b>C. 800</b></p> <p>D. 900</p>
2	The internal energy of an ideal gas system is generally the	<p>A. translational K.E of molecules</p> <p>B. vibrational K.E of molecules</p> <p>C. rotational K.E of molecules</p> <p>D. all of them</p>
3	Tick the conservative force:	<p>A. tension in a string</p> <p>B. Air resistance</p> <p><b>C. Elastic spring force</b></p> <p>D. Frictional force</p>
4	Time period of simple pendulum is independent of	<p>A. length</p> <p><b>B. mass</b></p> <p>C. acceleration due to gravity</p> <p>D. none of them</p>
5	Generally a temperature scale is established by	<p>A. one fixed point</p> <p><b>B. two fixed point</b></p> <p>C. three fixed point</p> <p>D. four fixed point</p>
6	Magnetic induction is also called as:	<p>A. <math>\frac{1}{\mu_0} \int \vec{B} \cdot d\vec{l}</math></p> <p>B. <math>\int \vec{B} \cdot d\vec{l}</math></p> <p>C. <math>\int \vec{B} \cdot d\vec{A}</math></p> <p>D. <math>\int \vec{B} \cdot d\vec{l} \cdot \cos \theta</math></p> <p>E. <math>\int \vec{B} \cdot d\vec{l} \cdot \sin \theta</math></p>
7	To turn the transistor OFF, the base current is set:	<p>A. At maximum value</p> <p><b>B. At zero</b></p> <p>C. Either (A) or (B)</p> <p>D. All are correct</p> <p>E. None of correct</p>
8	Fire fighters have jet attached to the head of their water pipes in order to	<p>A. Increase the mass of water flowing per second</p> <p>B. Increase the velocity of water flowing out</p> <p><b>C. Increase the volume of water flowing per second</b></p> <p>D. Avoid wastage of water</p>
9	If the velocity of the body decreases non-uniformly then the slope of the velocity-time graph will have	<p>A. different values</p> <p>B. same values</p> <p>C. zero values</p> <p>D. constant values</p>
10	The SI unit of electric field intensity is	<p>A. <math>\text{CN}^{-1}</math></p> <p><b>B. <math>\text{NC}^{-1}</math> or <math>\text{Vm}^{-1}</math></b></p> <p>C. <math>\text{C}^{-1}</math></p>

C.  $AV <sup>2</sup>$   
D.  $AV <sup>-1</sup>$

11 What temperature is the same on Celsius scale as well as on Fahrenheit scale?

- A.  $32^{\circ}\text{C}$   
B.  $-32^{\circ}\text{C}$   
C.  $-40^{\circ}\text{C}$   
D.  $-212^{\circ}\text{C}$

12 When the waveform of one voltage is increasing and that of second is decreasing and vice versa, then phase difference between these voltage is

- A.  $90^{\circ}$   
B.  $75^{\circ}$   
C.  $0^{\circ}$   
D.  $180^{\circ}$

13 Radioactivity is

- A. self disruptive activity  
B. spontaneous activity  
C. exhibited by all elements under proper conditions  
D. both 'a' and 'b'

14 Neutron was discovered by:

- A. Rutherford in 1920  
B. Chadwick in 1922  
C. Bohr in 1913  
D. Compton in 1927  
E. None of these

15 When a bicycle is in motion, the frictional forces exerted by the ground are

- A. In the forward direction on both the wheels  
B. In the backward direction on both the wheels  
C. In the forward direction on the front wheel and the backward direction on the rear wheel  
D. In the backward direction on the front wheel and the forward direction on the rear wheel

16 Kirchoff's first rule is also called:

- A. Loop rule  
B. Thumb rule  
C. Point rule  
D. Right hand rule  
E. None of these

17 The effects of bends in a wire on its electrical resistance are:

- A.  $\propto \frac{1}{2}CV^2$   
B.  $\propto \frac{1}{2}C^2V$   
C.  $\propto \frac{1}{2}CV^2$   
D.  $\propto \frac{1}{2}CV^2$   
E. None of these

18 The energy stored in a charge capacitor

- A.  $\frac{1}{2}CV^2$   
B.  $\frac{1}{2}C^2V$   
C.  $\frac{1}{2}CV^2$   
D. None of these

19 When a nucleus emits an alpha particle, its atomic mass decreased by

- A. 2  
B. 1  
C. 4  
D. 3

20 Chock consumes externally small

- A. Charge
- B. Current
- C. Power
- D. Potential