

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	Experiments revealed that the ratio of the stress to the strain is a constant value for	A. different material B. all materials C. a given material D. all of them
2	A condenser of capacity 50 $\mu$ F is charged to 10 V.The energy stored is	A. 1.25 x 10 <sup>-3</sup> J B. 3.75 x 10 <sup>-3</sup> J C. 2.5 x 10 <sup>-3</sup> J D. 5 x 10 <sup>-3</sup> J
3	In case of metallic conductors, the charge carriers are	A. Protons B. Electrons C. Antiprotons D. Positrons E. Both A and B
4	A high temperature, the proportion of shorter wavelengths radiation, emitted by the body	A. decreases B. first increases then decreases C. increases D. any one of them
5	It is possible to recognize a person by hearing his voice even if he is hidden behind a solid wall. This is due to the fact that his voice	A. Has a definite pitch     B. Has a definite quality     C. Has a definite capacity     D. Can penetrate the wall
6	If R is gas constant for 1 gram mole, $C_p$ and $C_v$ are specific heat for a solid then	A. C <sub>p</sub> - C <sub>v</sub> = R B. C <sub>p</sub> - C <sub>v &lt; R</sub> C. C <sub>p</sub> - C <sub>v = 0</sub> D. C <sub>p</sub> - C <sub>v &gt; R</sub>
7	Current provided by a battery is maximum when	A. Internal resistance equal to external resistance B. Internal resistance is greater than external resistance C. Internal resistance is less then external resistance D. None of these
8	Bernoulli's equation is based upon law of conversation	A. Mass B. Momentum C. Energy D. None of these
9	Flurescent screen is a screen where visible spot	A. vanishes B. is made C. becomes small and large D. none of these
10	Which one of the following has larger value of relative permitivity $E_{r}$ at room temperature?	A. Vaccum B. Air C. Glass D. Water
11	When platinum wire is heated, then at the temperature of 500 <sup>o</sup> C, it becomes:	A. Yellow B. Orange red C. Dull red D. White E. Cherry red
12	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
13	Pressure applied at any point of gas at rest is transmitted equally to all parts of the gas. This is the statement of:	A. Newton's second law B. Pascal's law C. Carnot theorem D. Second law of thermodynamics
14	Which of the following can become a good permanent magnet	A. iron B. steel C. both of them D. none of them

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15	The force exerted by the fluid in a hydraulic pump on the piston is 10 $\text{cm}^2,$ the fluid pressure on the piston is, in $\text{N/cm}^2$	A. 20 B. 200 C. 2000 D. 20,000
16	Average KE of a gas molecule has:	A. Direct relation with absolute temperature and inverse relation with pressure     B. Direction relation with both absolute temperature and pressure     C. Inverse relation with both absolute temperature and pressure     D. None of these
17	When a constant potential difference is applied across the conductor, the drift velocity of electrons:	A. <span style='font-size:12.0pt; line-height:107%; font-family:" Times New Roman","serif"'>Increases&lt;0:p&gt;</span> B. <span style='font-size:12.0pt; line-height:107%; font-family:" Times New Roman","serif"'>Decreases&lt;0:p&gt;</span> C. <span style='font-size: 12.0pt; line-height: 107%; font-family: " Times New Roman", serif;'>Remains the constant </span>
18	Above the curie temperature, iron becomes	A. ferromagnetic B. paramagnetic C. diamagnetic D. any one of them
19	The Nobel Prize on the explanation of photoelectric effect was awarded to:	A. Max. Planck B. Maxwell C. Bohr D. Rutherford E. None of these
20	Velocity of sound in a diatomic as is 300 m/sec. what is its rms velocity?	A. 400 m/sec B. 40 m/sec C. 430 m/sec D. 300 m/sec