

## ECAT Physics Online Test

Sr	Questions	Answers Choice
1	The open loop gain of OP-AMP is of the order of	A. $10^2$ B. $10^3$ C. $10^4$ D. $10^5$
2	At resonance, the phase angle for RLC series resonance circuit equals	A. $0^\circ$ B. $90^\circ$ C. $180^\circ$ D. $270^\circ$
3	Shock absorber of the car is an example of	A. resonance B. forced oscillations C. interference D. damped oscillations
4	For a n-p-n transistor, the conventional current equation can be written as	A. $I_C = I_E + I_B$ B. $I_C = I_B - I_E$ C. $I_C + I_B = I_E$ D. $I_B = I_C + I_E$
5	The number of LED'S needed to display all the digits is:	A. Four B. Five C. Nine D. Six E. Seven
6	Inertia mass and gravitational mass are	A. opposite B. identical C. identical when there is no friction D. all of them
7	The fractional change in resistance per kelvin is known as	A. temperature coefficient B. resistance coefficient C. super temperature D. critical temperature
8	The liquid which conduct current is known as	A. heating effect B. chemical energy C. electrolyte D. ohm's law
9	When some compass needles are placed on a card board along a circle with the center at the wire, they will	A. Point in the direction of N-S B. Set themselves tangential to the circle C. Point in the direction of E-W D. None of these E. Point in direction of S-E

10	The product of the pressure and volume of an ideal gas is	A. A constant B. Approximately equal to the universal gas constant C. Directly proportional to its temperature D. Inversely proportional to its temperature
11	The basic circuit element in D.C. circuit is:	A. A capacitor B. A resistor C. An inductor D. Both (A) and (C) E. Both (A) and (B)
12	The measure of the deformation in a solid when stress is applied to it is called	A. elastic constant B. young's modulus C. strain D. elasticity
13	If $m$ is the mass of the gases ejected per second with velocity $v$ relative to the rocket of mass $M$ , then the acceleration of rocket is	A. $a = M/mv$ B. $a = mM/v$ C. $a = mv/M$ D. $a = v/mm$
14	Which are not the elementary particles?	A. Photons B. Leptons C. Hadrons D. Quarks E. None of these
15	Rate of flow can be expressed in	A. litre/sec B. litre-sec C. sec/litre D. sec/litre-m
16	An example of photoconductor is:	A. <p> Boron</p>
17	In which of the following components, pn-junction is used	A. light emitting diode B. photo diode C. photo voltaic cell D. all of these
18	The magnetic field outside the solenoid due to current is	A. strong B. zero C. weak D. uniform
19	Force is a:	A. Scalar quantity B. Base quantity C. Derived quantity D. None of these
20	Acceleration in a body is always produced in the direction of :	A. Velocity B. Weight C. Force D. Both B and C