

## Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	The tidal energy is produced due to rotation of Earth relative to:	A. Moon B. Sun C. Oceans D. Water
2	The current in LCR circuit will be maximum when $\omega$ is	A. As large as possible B. Equal to natural frequency of LCR system
3	An induced current can be produced by	A. Constant magnetic field B. Changing magnetic field C. Varying electric field D. Constant electric field E. None of these
4	If the water falls from a dam into a turbine wheel 19.6 m below, then the velocity of water at the turbine, is (Take $g=9.8 \text{ m/s}^2$ )	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
5	If a mass of 10 gm is suspended from a spring of $k = 9.8 \text{ Nm}^{-1}$ , then the extension will be:	A. 1 cm B. 1 m C. 10 mm D. None of these
6	The lines of a difference grating have a spacing of 1.2 m. When a beam of monochromatic light is incident normally on the grating. The first order maximum monochromatic light is.	A. 1200 nano meters B. 450 meters C. 600 nano meters D. 700 nano meters
7	$\gamma$ -rays are	A. electrostatic waves B. electromagnetic waves C. heavy particles D. longitudinal waves
8	The basic circuit element in a d.c. circuit is a/an	A. Inductor B. Resistor C. Capacitor D. Battery
9	The direction of the streamlines is the same as the direction of the	A. force B. torque C. velocity D. weight
10	Which of the following forces is responsible for SHM	A. Applied force B. Restoring force C. Fractional force D. Elastic force
11	If the two charges in Coulomb's law have double distance between them, then electric force	A. Becomes two-fold B. Becomes four-fold C. Remains the same D. None of these
12	The value of the input resistance of OP-AMP is of the order of	A. few ohms B. few hundred ohms C. several kilo ohms D. several mega ohms
13	A uniform resistance wire of Length L and diameter d has a resistance R. Another wire of same material has length, 4L and diameter 2d, the resistance will be	A. 2 R B. R C. R/2 D. R/4
14	Work done is lowering the bucket into the well is:	A. Zero B. Positive C. Negative D. None of these
15	The SI unit of electric flux is	A. Weber B. $\text{Nm}^2\text{C}^{-1}$ C. $\text{NmC}^{-1}$ D. $\text{Nm}^2\text{C}$

16	A charge of 0.1 c accelerated through a potential difference of 1000V acquires kinetic energy	A. 200 J B. 100 J C. 1000 J D. 400 J
17	Magnetic effect at a point caused due to flow a current depend upon the	A. Quantity of current B. Distance from current C. Both the quantity of current and distance from current element D. None of the all
18	X-rays produced in a tube operating at $10^5$ V. The speed of X-rays produced is	A. $3 \times 10^8$ m/s B. $3.1 \times 10^8$ m/s C. $2.8 \times 10^8$ m/s D. $1.88 \times 10^8$ m/s
19	Resistance of a conductor depends upon	A. the quantity of current passing through it B. the voltage applied between its end C. its dimensions, physical state and nature of its material D. all of the above
20	The dimension of linear inertia is:	A. $MLT^2$ B. $ML$ C. $MLT$ D. $MLT^{-1}$