

Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	When quarter of a circle is completed, the phase of vibration is:	<p>A. 90°</p> <p>B. 180°</p> <p>C. 45°</p> <p>D. 360°</p>
2	Hotness and coldness of an object is represented in terms:	<p>A. Heat</p> <p>B. Temperature</p> <p>C. Chemical energy</p> <p>D. None of these</p>
3	The RMS value of alternating current is:	<p>A. 0.7 times at the peak value</p> <p>B. 0.5 times the peak value</p> <p>C. 0.7 times the Instantaneous value</p> <p>D. Equal to maximum voltage</p> <p>E. None of these</p>
4	The mass of the nucleus is always less than the total mass of the protons and neutron that make up the nucleus. The difference of the two masses is called	<p>A. nuclear fission</p> <p>B. nuclear fusion</p> <p>C. mass defect</p> <p>D. radioactivity</p>
5	Two metal rods A and B have their initial lengths in the ratio 2 : 3 and coefficients of linear expansion in the ratio 4 : 3. When they are heated through same temperature difference the ratio of their linear expansion is	<p>A. 1 : 2</p> <p>B. 2 : 3</p> <p>C. 3 : 4</p> <p>D. 8 : 9</p>
6	If N is the total number of molecules and V is the volume of the container, then the expression for the pressure of gas is	<p>A. $P = \frac{1}{3} \frac{Nmv^2}{V}$</p> <p>B. $P = \frac{2}{3} \frac{Nmv^2}{V}$</p> <p>C. $P = \frac{2}{3} \frac{N}{V} \frac{1}{2} mv^2$</p> <p>D. $P = \frac{2}{3} \frac{N}{V} mv^2$</p>
7	During each cycle, alternating voltage reaches a peak value	<p>A. One time</p> <p>B. Two times</p> <p>C. Four times</p> <p>D. A number of times depending on the frequency</p>
8	Electric intensity at a place due to a charged conductor is a	<p>A. Scalar quantity</p> <p>B. Vector quantity</p> <p>C. Semi vector and semi scalar</p> <p>D. Dimensionless quantity</p> <p>E. Both A and D are true</p>
9	The energy is found from Einstein's mass energy relation is called	<p>A. binding energy of electron</p> <p>B. binding energy of proton</p> <p>C. binding energy of neutron</p>

D. binding energy of nucleus

10	In a container having water filled up to a height h , a hole is made in the bottom. The velocity of water flowing out of the hole is	A. Independent of h B. Proportional to $h^{1/2}$ C. Proportional to h D. Proportional to h^2
11	Number of supplementary units are	A. Three B. Two C. Seven D. Five
12	The number of "Earth Stations" which transmit signals to satellites and receive signals from them are	A. 3 B. 24 C. 126 D. 200
13	With increase of temperature, the viscosity of liquid and gases	A. Increases for both B. Decreases for both C. Increases for liquids and decreases for gases D. Decreases for liquids and increases for gases
14	A snooker ball moving with velocity V collides head on with another snooker ball of same mass at rest. If the collision is elastic, the velocity of second snooker ball is	A. Zero B. Infinity C. V D. $2V$
15	In order to get interference using two light rays	A. The sources should be monochromatic and coherent B. The sources should have the same frequency C. Superposition should be linear D. All of these
16	The concept of field theory was put forward by	A. Franklin B. Kepler C. Oersted D. Michael Faraday
17	Electric field strength is defined as	A. Work done on unit charge B. Force exerted on unit charge C. Distance covered by unit charge D. Power exerted by unit charge E. None of these
18	A curie represents a very strong source of	A. α -particle B. β -particle C. γ -particle D. none of these
19	The internal pressure of the blood is	A. less than the external atmospheric pressure B. greater than the external atmospheric pressure C. equal to the external atmospheric pressure D. none of them
20	For measuring large currents, an ordinary galvanometer cannot be used without proper, then both relates with each other as	A. modification B. voltage C. current D. resistance