

Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	In circuit X, $L = 100 \text{ mH}$ and $C = 100 \text{ micro F}$ are attached in series. In circuit Y, $L=100 \text{ mH}$ and $C= 10 \text{ micro F}$ are attached in parallel. The resonating frequency f_x and f_y are related	A. $f_x = f_y$ B. $f_x > f_y$ C. $f_x = 0.01 f_y$ D. Cannot be determined
2	Split rings act as	A. Vibrator B. Resistor C. Motor D. Commutator
3	It is impossible to devise a processes which may convert heat, extracted from a single reservoir, entirely into work without leaving any change in the working system. This is the statement of	A. Clausius statement of second law B. Kelvin's statement of second law C. Clausius statement of first law D. Kelvin's statement of first law
4	The ratio of energy E to the corresponding frequency (f) of the radiation (emitted or absorbed) is called:	A. Wien's constant B. Stefan's constant C. Planck's constant D. Boltzmann's constant E. None of these
5	Fluids resist force, This property is called	A. Stiffness B. Strength C. Ductility D. Elasticity
6	The critical temperature of tin is	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
7	When the same object is viewed at a shorter distance, the image on the retina of the eye is _____ the so the object appears:	A. Greater, smaller B. Smaller, smaller C. Smaller, larger D. Greater, larger
8	In the force applied is parallel to the direction of motion, then work done is:	A. Maximum B. Minimum C. Zero D. None of these
9	When a mass ' m ' is pulled slowly, the spring stretches by an amount x_0 , then the work done will be	A. $W=Kx₀$ B. $W=1/2Kx₀$ C. $W=1/2K²₀$ D. $W=4Kx₀$
10	The law of electromagnetic induction is related to:	A. Coulomb B. Ampere C. Faraday D. Lenz E. None of these
11	The number of translation degrees of freedom for a diatomic gas is	A. 2 B. 3 C. 5 D. 6
12	By which velocity a ball be projected vertically so that the distance covered by it in 5th seconds is twice the distance it covers in its 6th second ($g=10\text{m/s}^2$)	A. 58.8 m/s B. 49 m/s C. 65 m/s D. 19.6 m/s
13	A motorist travels A to B at a speed of 40 km/h and returns at speed of 60 km/h. His average speed will be	A. 40 km/h B. 48 km/h C. 50 km/h D. 60 km/h
14	A bar 1.0 m in length and located along x-axis moves with a speed of 0.75 c with respect to a stationary observer. The length of the bar as measured by the stationary observer is	A. 1.66 m B. 1.0 m C. 0.66 m D. 2.66 m E. Zero

15	Work done in lower and bucket into the well is:	B. Positive C. Negative D. None of these
16	The vector representation of force experience give the direction of	A. magnetic field B. current C. length of conductor D. force
17	Zirconia is classified as:	A. Ceramic solid B. Ionic compound C. Metal D. Either (A) or (B) E. Either (B) or (C)
18	When the p-n junction is forward biased its resistance is of the order of	A. few mega ohms B. few kilo ohms C. few ohms D. few milli ohms
19	Electrons are	A. positive charged B. negatively charged C. massless D. neutral
20	Bernoulli's equation is based upon law of conversation	A. Mass B. Momentum C. Energy D. None of these