

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

Sr	Questions	Answers Choice
1	The restoring force is _____ and opposite to the applied force within _____,:  	A. Equal, elastic limit B. Different, the walls of the laboratory C. Different, elastic limit D. None of these
2	The second law of thermodynamics is concerned with the circumstances in which  	A. heat can be converted into work B. direction of flow of heat C. none of them D. both of them
3	A p-n junction is formed when a crystal of silicon is growth in such a way that its one half is doped with trivalent impurity and the other half with a impurity from  	A. 2nd group B. fourth group C. fifth group D. sixth group
4	The ratio of energy E to the corresponding frequency (f) of the radiation (emitted or absorbed) is called:  	A. Wien's constant B. Stefen's constnat C. Planck's constant D. Boltzmann's constant E. None of these
5	The cohesive forces between atoms, molecules or ions in crystalline solids maintain the strict  	A. short range order B. long range order C. both of them D. none of them
6	Heat required to raise the temperature of one mole of a gas through 1 K at constant pressure is called  	A. heat capacity B. specific heat capacity C. specific heat at constant volume D. specific heat at constant pressure
7	When a conductor moved with its length parallel to the lines of magnetic fled:  	A. An emf is induced across its ends B. Emf induced is similar to that of a battery C. Emf passes through the conductor D. Both A and B E. None of these
8	In above figures, tell which set of graphs shows that a body is moving with uniform velocity:  	A. (i) and (ii) B. (ii) and (iii) C. (iii) and (iv)
9	A piece of wire along which charges are made to accelerate is known as  	A. transmitting antenna B. receiving antenna C. modulator D. nor of these
10	In a transistor, collector current is controlled by  	A. Collector voltage B. Base current C. Collector resistance D. All of the above
11	Which one of the following relations is correct?  	A. $1 \text{ Wb} \cdot \text{m}^2 = \text{Nm} \cdot \text{A}^{-1}$ B. 1 tesla = 104 gauss C. $1 \text{ Wb} \cdot \text{m}^2 = 1 \text{ tesla}$ D. All of the above
12	Semi-conductor elements have atoms with  	A. 2 valence electrons B. 3 valence electrons C. 4 valence electrons D. 5 valence electrons
13	First law of thermodynamic is special case of  	A. Law of conservation of energy B. Charle's law  C. Law of conservation of mass D. Boyle's law
14	If a simple pendulum is shifted from karachi to K-2 cliff, its time period  	A. remains the same B. decreases C. increases D. none of them

15 The electrical forces between the molecules of a liquid are  
A. Repulsive  
B. Attractive  
C. Both A and B  
D. None

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16 Eddy current is produced when:  
A. A metal is kept in varying magnetic field  
B. A metal is kept in steady magnetic field  
C. A circular coil is placed in a steady magnetic field  
D. A current is passed through a circular coil

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17 Shock absorber of the car is an example of  
A. resonance  
B. forced oscillations  
C. interference  
D. damped oscillations

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18 The range of  $\beta$ -particle in air is greater than that of  $\alpha$ -particle by  
A. 1000 times  
B. 100 times  
C. 15 times  
D. 10 times

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19 Newton's law of motion do not hold in  
A. an accelerated frame of reference  
B. an unaccelerated frame of reference  
C. both of these  
D. none of these

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20 When a vector is multiplied by a negative number, its direction:  
A. Remains the same  
B. Changes  
C. Changes by  $180^\circ$   
D. None of these

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