

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

Sr	Questions	Answers Choice
1	A uniform bar AE of weight 9 N is held horizontal by vertical forces. Two additional force act at A and D as shown in figure. The points A,B,C,D and E are at equal intervals along the bar. At which point must vertical force of 6 N act to keep bar in equilibrium.	A. Point D B. Point E C. Point C D. Point B
2	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
3	An L-R circuit has $R = 10 \Omega$ and $L = 2 \text{ H}$ . If 120 V, 60 Hz A.C. voltage is applied, then current in the circuit will be	A. 0.32 A B. 0.16 A C. 0.48 A D. 0.80 A
4	A body of mass 0.031 kg attached to one end of a spring of spring constant 0.3 N/m, then time period of spring mass system will be:	A. 1.5 sec B. 2.0 sec C. 2.3 sec D. 2.5 sec
5	At resonance frequency the impedance of parallel resonance circuit is	A. Maximum B. Minimum C. Zero D. None of the above
6	If the absolute uncertainty of an instrument is 0.0a1 cm, then its least count will be :	A. 0.005 cm B. 0.01 cm C. 0.02 cm D. 0.001 cm
7	Which of the following is most suitable as the core of transformer	A. Soft iron B. Alnico C. Steel D. None of these
8	When a platinum wire is heated, it appears dull red at about	A. 500°C B. 900°C C. 1100°C D. 1300°C
9	Which of the following is not a projectile	A. a bullet fired from a gun B. a space ship C. a football in air D. an artillery shell
10	An A.C varies as a function of	A. Current B. Voltage C. Time D. Charge
11	The current in microamperes required to produce one millimeter deflection on a scale placed one meter away from the mirror of the galvanometer, defined the sensitivity of	A. ammeter B. voltmeter C. galvanometer D. avo-meter
12	Fire fighters have jet attached to the head of their water pipes in order to	A. Increase the mass of water flowing per second B. Increase the velocity of water flowing out C. Increase the volume of water flowing per second D. Avoid wastage of water
13	When a body is moves along a circular path with constant speed, it has an acceleration, which is always directed:	A. Along the tangent B. Toward the centre C. Away from the centre D. None of them
14	Carnot heat engine only used	A. isothermal processes B. adiabatic processes C. both of them D. none of them

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15 The diameter of an atom is of the order

A.  $10^{-125}$ m  
B.  $10^{-11}$ m  
C.  $10^{-10}$ m  
D.  $10^{-9}$ m

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16 When brakes are applied to a fast moving car, the passenger will be thrown:

A. Forward  
B. Backward  
C. Downward  
D. none of these

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17 Consider a spherical shell of metal at the centre of which a positive point charge is kept

A. The electric field is zero outside the shell  
B. The electric field is zero everywhere  
C. The electric field is zero in the region inside the shell  
D. The electric field is non-zero in both regions outside and inside the shell

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18 The Instantaneous value of alternative current maybe:

A. The same as its RMS value  
B. Greater than its Rms value  
C. The same as its peak value  
D. Any of these  
E. None of these

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19 In a straight current carrying conductor, the direction of magnetic field can be found by

A. right hand rule  
B. left hand rule  
C. head to tail rule  
D. none of these

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20 A conducting wire is drawn to double its length. Final resistivity of the material will be

A. Double of the original one  
B. Half of the original one  
C. One fourth of the original one  
D. Same as original one

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