Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	If the formula PV = nRT, n denotes:	A. Number of molecules per unit volume B. Number of moles C. Number of molecules D. None of these
2	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
3	Which one is conservative force	A. Electric force B. Frictional force C. Normal force D. Air resistance
4	Speed of Sound in vacuum is.	A. 332 m sec -1 B. 0. m sec-1 C. 340 m sec-1 D. 350 m sec-1
5	An Astronaut in space comes to know of an explosion on nearby planet. The astronaut came to know about this explosion becuase.	A. The astronaut saw, heard and felt the explosion B. The astronaut only saw the explosion C. The astronaut only heard the explosion D. The astronaut both saw and heard the explosion
6	Work is product of:	A. Force and velocity B. Heat and energy C. Force and displacement D. None of these
7	The electric potential at the surface of an atomic nucleus (Z = 50) of radius 9.0 x 10^{-15} is	A. 9 x 10⁵V B. 9 V C. 8 x 10⁶V D. 80 V
8	A mass difference of 0.0012 u is equivalent to and energy of:	A. 0.5 Me V B. 1.13 MeV C. 5.13 MeV D. 1.13 keV E. 1.13 eV
9	When the shear stress and shear stain are involved, then their ratio is called	A. Young's modulus B. Bulk modulus C. Shear modulus D. all of them
10	Two bullets are fired simultaneously, horizontally and with different speeds from the same place. Which bullet will hit the ground first?	A. The faster one B. Depends on their mass C. The slower one D. Both will reach simultaneously
11	Inverter is the name given to:	A. NOT gate B. OR gate C. NOR gate D. AND gate E. XOR gate
12	Smaller the damping, the resonance will be	A. more flat B. more sharp C. both of them D. none of them
13	Distance traveled by a body falling from rest in the first, second and third second is in the ration of	A. 1 : 2 : 3 B. 1 : 3 : 5 C. 1 : 4 : 9 D. None of the above
		A. 0<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial,

		sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° B. 30<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 60<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° D. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°
14	A body moves a distance of 10 m along a straight line under the action of a force of 5 N. If the work done is 25 J, the angle which force makes with the direction of motion of a body is:	
15	1 amu is equal to.	A. 1.66 x 10⁻²⁴kg B. 1.66 x 10⁻¹⁹kg C. 1.66 x 10⁻²⁴kg D. 1.66 x 10⁻²⁷kg
16	Consider two spheres A and B or radii ra and rb both concentric with point charge Q, If ra>rb then the total flux passing normally through the sphere A and B is related as	A. Flux through A is greater B. Flux through both sphere is equal C. Flux through a may be greater or less than Q depending on radius D. Flux through spohere B is greater
17	Acceleration in a body is always produced in the directin of:	A. Velocity B. Weight C. Force D. Botha B and C
18	Peak value of alternative current is:	A. one of its Instantaneous value B. Equal to its RMS value C. The same as its peak-to-peak value D. Both (B) and (C) E. None of these
19	The types of mechanical energy is/are:	A. Kinetic energy B. Potential energy C. Both of these D. None of these
20	When quarter of a cycle is completed, the phase of vibration is:	A. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° B. 180<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 45<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°

D. 360<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°