Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	When transistors are used in digital circuits they usually operate in the	A. Active region B. Breakdown region C. Saturation and cutoff regions D. Linear region
2	The commercial unit of electrical energy is :	A. K Watt B. KWH C. Horse power D. Joule
3	A body moving with an acceleration of 5 m/sec^{2}started with velocity of 10 m/sec. What will be the distance traversed in 10 seconds?	A. 150 m B. 250 m C. 350 m D. 400 m
4	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
5	The field around a moving charge is called	A. magnetic field B. conservative field C. non-conservative field D. none of these
6	An vector of 10 N makes an angle of 45° with x-axis. Angle between its rectangular components with be:	A. 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;">° B. 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;">° C. 135<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. Zero
7	The current that flows through the coil of a motor causes	A. Its shaft to revolve B. Its brushes to rotate C. Motor to move D. Its shaft to rotate E. None of these
8	The nature of thermal radiation is similar to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of these
9	The year when A.H. compton was awarded Nobel Prize is:	A. 1923 B. 1927 C. 1931 D. 1935 E. None of these
10	Root out of the conventional source of energy:	A. Energy from biomass B. Hydroelectric energy C. Geothermal energy D. None of these
11	Progressive waves of frequency 300 Hz are superimposed in produced a system of stationary waves in which adjacent nodes are 1.5 m apart. What is the speed of the progressive waves?	A. 100 ms⁻¹ B. 200 ms⁻¹ C. 450 ms⁻¹ D. 900 ms⁻¹

12	The electrons in the outermost shell of an atom are called	A. core electrons B. valence electrons C. high energy electrons D. none of them
13	If a body reaches a speed equal to the speed of light, then its mass will became	A. zero B. very small C. infinity D. none of these
14	Which of the following statements for an object in equilibrium is not true?	A. The object must be at rest B. The object can be at rest C. The object is moving at constant speed D. The acceleration of the object is zero
15	The body oscillates due to _____ accelerates and overshoots the rest position due to_____,:	A. Applied force, inertial B. Restoring force, friction C. Frictional force, inertial D. Restoring force, inertial
16	Which one of the least multiple:	A. Pico B. Femto C. Nano D. Atto
17	In gases, the charge carries are:	A. Electrons<o:p></o:p> B. Positive ions<o:p></o:p> C. Negative ions<o:p></o:p> D. Both (A) and (C)<o:p></o:p> E. Both (A) and (B)<o:p></o:p>
18	Which one of the following phenomenon cannot be explained on the bases of Huygen's theory	A. Refraction B. Reflection C. Diffraction D. Formation of spectrum
19	A vector of magnitude 5 N is added to a vector of magnitude 8 N while the orientations are changeable. Range of their possible sum will be very from:	A. Zero to 3 N B. 1 N to 13 N C. 13 N to 3 N D. None of these
20	In an adiabatic expansion, the temperature of the gas	A. increases B. becomes zero C. decreases D. decreases rapidly