Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Method "lamp and scale arrangement" used to measure the	A. angle of deflection B. restoring torque C. magnetic field strength D. current
2	If a gymnast sitting on a rotating stool with his arms outstretched, brings his arms towards the chest, then its angular velocity will	A. Increase B. Decrease C. Remain constant D. None of these
3	When a body moves with a constant speed in a circle:	A. No work is done on it B. No acceleration is produced in the body C. Velocity remains constant D. None of these
4	The SI unit of magnetic permeability is	A. WB $A^{-1}m^{-1}$ B. WB mA^{-1} C. WB Am^{-1} D. None of these
5	When an object moves with a uniform angular velocity, then its instantaneous angular velocity is equal to:	A. Zero B. Its average velocity C. Its angular displacement D. None of these
6	A point charge A of charge +4μC and another B of charge -1μC are placed in air at a distance 1 m apart. Then the distance of the point on the line joining the charge B, where the resultant electric field is zero, is (in m)	A. 2 B. 1 C. 0.5 D. 1.5
7	The mass 'm' of a body moving at 0.8 c (whose rest mass is mo) becomes	A. 2 mo B. 1.67 mo C. 0.67 mo D. 2.67 mo
8	When radioactive nucleus emits aβ-particle, the proton-neutron ratio	A. decrease B. increase C. same D. none of these
9	If R is gas constant for 1 gram mole, C_p and C_v are specific heat for a solid then	A. $C_p - C_v = R$ B. $C_p - C_v < R$ C. $C_p - C_v = 0$ D. $C_p - C_v > R$
10	A body with frequency of would complete one vibration in:	A. f seconds B. 1/f seconds C. 1 second D. f^2 second
11	The un-steady streamline flow is called	A. laminar flow B. turbulent flow C. both of them D. none of them
12	'K' is the proportionality constant of force experienced by conductor. What is the value of 'K' in SI units?	A. 0 B. 1 C. 0.5 D. -1
13	0.0001210 has _____ significant figures.	A. Four B. Three C. Seven D. Eight
14	Data transmitted along glass-fiber cables is in the form of pulses of monochromatic red light each of duration 2.5 ns. Which of the following is the best estimate of the number of wavelength in each pulse?	A. 10^3 B. 10^6 C. 10^9 D. 10^{12}
15	Direction of motion _____ in circular motion	A. Changes off and on B. Changes continously C. Does not change D. None of them

16	The value of E_0 in coulomb's law is:	A. $9 \times 10^9 \, Nm^2C^{-2}$ B. $8.85 \times 10^{-12} \, C^2N^{-1}m^{-2}$ C. $8.85 \times 10^{-12} \, Nm^2C^{-2}$ D. $9 \times 10^9 \, C^2N^{-1}m^{-2}$
17	Arsenic, antimony and phosphorus are the elements from	A. third group B. fourth group C. fifth group D. none of them
18	If N is the total number of molecules and V is the volume of the container, then the expression for the pressure of gas is	A. $P = P/V < 1/2mv^2 >$ B. $P = 2N/V < 1/2mv^2 >$ C. $P = 2/3N/V < 1/2mv^2 >$ D. $P = 2/3N/V < mv^2 >$
19	The work performed on an object does not depend on	A. Force applied B. Angle at which force is inclined to the displacement C. Initial velocity of the object D. Displacement
20	The ratio of the r.m.s value of the applied voltage to the r.m.s value of resulting a.c. is	A. Impedance B. Inductance C. Reactance D. Resistance