Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	A signal appears after amplification, at the output terminal with a phase shift of 180° , if it is applied at	A. inverting input B. non-inverting input C. any one of the input terminal D. none of them
2	The speed of a pendulum is measured to be 3.0 s in the inertial reference frame of the pendulum. What is its period measured by an observer moving at a speed of 0.95 c with respect to the pendulum	A. 2.9 s B. 3.0 s C. 6.6 s D. 9.6 s
3	Which of the following options correctly states the equation of continuity for an ideal fluid?	A. A₁A₂= V₁V₂ B. A₁/A₂= V₂/V₁ C. A₁/A₂= V₁/V₂ D. none of the above
4	Coulomb multiplied by volt by volt gives the unit called:	A. farad B. Ohm C. Second D. joule E. Watt
5	Referring to above figure, due to change in current in the coil P, the change in magnetic flux	A. Is associated with coil P B. Is associated with coil S C. Causes and induced current in coil S D. All of these E. None of these
6	The electric intensity at infinite distance from the point charge will be	A. Infinite B. Positive C. Zero D. Negative
7	The analysis of fluid motion becomes simplified by using	A. law of conservation B. law of conservation of energy C. both of them D. none of them
8	The unit of induced emf is:	A. Volt B. Nm/As C. Joule coul⁻¹ D. Both A and C E. All of these
9	When radioactive nucleus emits aβ-particle, the proton-neutron ratio	A. decrease B. increase C. same D. none of these
10	Physics details with the study of:	A. Matter B. Energy C. Both of them D. Human body
11	At a certain instant a stationary transverse wave is found to have maximum kinetic energy. The appearance of string of that instant is	A. Sinusoidal shape with amplitude A/3 B. Sinusoidal shape with amplitude A/2 C. Sinusoidal shape with amplitude A D. Straight line
12	In circuit X, L = 100 mH and C= 100 meo F are attached in series. In circuit Y, L=100 mH and C= 10 meo G are attached in parallel. The resonating frequency fx and fy are related	A. fx = fy B. fx=10 fy C. fx = 0.01 fy D. Cannot be determined
13	In SHM, there is always a constant ratio between displacement if body and its:	A. Velocity B. Period C. Mass D. Acceleration
14	In transverse waves, the individual particles of the medium move:	A. In circles B. Perpendicular to the direction of level

		C. Parallel to the direction of level D. None of these
15	A police motor cycle running at 140 km/Hr. The apparent frequency heard by the car driver is.	A. Greater than 10 KHZ B. 10 KHZ C. Then siren will not be heard D. Less than 10 KHZ
16	Dimensions of velocity are	A. [L] B. [T] C. [LT⁻¹] D. [LT⁻²]
17	Which one is the least multiple	A. Pico B. Femto C. Nano D. Atto
18	A disc rolls down a hill and its speed at bottom is found to be 11.4 m/sec. Height of the hill is then nearly:	A. 10 m B. 12 m C. 13 m D. 15 m
19	If the acceleration of a body is negative, then slope of the velocity-time graph will be:	A. Zero B. Positive C. Negative D. Infinity
20	A point on the rim of a wheel moves 0.2 m when the wheel turns through an angle of 14.3 degrees. The radius of the wheel is:	A. 0.05 m B. 0.08 m C. 0.8 m D. 0.008 m