

Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	A device which converts Electrical energy into mechanical energy is called as	A. Transformer B. Generator C. Motor D. All of these
2	A train of 150 m length is going towards north direction at a speed of 10 ms^{-1} . A parrot flies at a speed of 5 ms^{-1} towards south direction parallel to the railway track. The time taken by the parrot to cross the train is equal to	A. 12 s B. 8 s C. 15 s D. 10 s
3	The energy of a photon in a beam of infrared radiation of wavelength 1240 nm is	A. 100 eV B. $10^{⁶} \text{ eV}$ C. $10^{³} \text{ eV}$ D. 1.0 eV
4	The direction of a vector in space requires:	A. X-axis B. X and Y-axes C. XYZ axes D. Y and Z-axes
5	The square of 0.4 is:	A. Greater than 0.4 B. Smaller than 0.4 C. Equal to 0.4 D. None of them
6	The density of blood is nearly equal to that of	A. mercury B. sodium C. water D. honey
7	A projectile on its path gets divided into two pieces at its highest point. Which is true?	A. Momentum increases B. Momentum decreases C. Kinetic energy increases D. Kinetic energy decreases
8	Viscosity of water is _____ that of air but _____ that of plasma.	A. More, more B. Less, more C. Less, less D. More, less
9	If one of the pipes has a much smaller diameter than the other and are placed horizontally then from both sides of Bernoulli's equation, we can drop the term	A. P B. $1/2 \text{ fv}^{²}$ C. ρgh D. none of them
10	Swimming becomes possible because of _____ law of motion.	A. First B. Second C. Third D. None of these
11	A monkey sits on the pan of spring scale kept in an elevator. The reading of the spring scale will be maximum when	A. Elevator is stationary B. Elevator cable breaks and it falls freely towards earth C. Elevator accelerates downwards D. Elevator accelerates upward
12	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
13	Position was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
14	If the distance between two charges is doubled, the force between them will become:	A. Double B. Half C. One third D. One fourth
15	The net force acting on a 100 kg man standing in an elevator accelerating downward with $a = 0.8 \text{ m sec}^{-2}$ comes out to:	A. 980 N B. 580 N C. 1380 N D. 140 N

16 A boat of mass 40 kg is at rest. A dog of mass 4 kg moves in the boat with a velocity of 10 m/s. What is the velocity of boat?

A. 4 m/s
B. 2 m/s
C. 8 m/s
D. 1 m/s

17 Two water pipes of diameters 4 cm and 8 cm are connected with a supply line. The velocity of flow of water in the pipe 4 cm diameter is

A. 1/4 times
B. 4 times
C. Twice
D. 1/2 of 8 cm diameter pipe

18 If a body reaches a speed equal to the speed of light, then its mass will become

A. zero
B. very small
C. infinity
D. none of these

19 A changing magnetic flux creates around itself

A. An electromotive force
B. An electric field (changing electric flux)
C. Magnetic field
D. None of the above

20 If a force of 0.05 N produces an elongation of 20 mm in a string, then its spring constant will be:

A. 250 N m^{-1}
B. 25 N m^{-1}
C. 2.5 N m^{-1}
D. None of these
