

Physics ECAT Pre Engineering Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	The center of mass of a sphere lies at:	A. The axis of the sphere B. Circumference of sphere C. Center of the sphere D. None of them
2	Circular motion is an example of motion in:	A. One dimension B. Two dimensions C. Three dimensions D. None of these
3	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of them
4	A stone tied to the end of a 20 cm long string is whirled in a horizontal circle. If centripetal acceleration is 9.8 m/sec^2 , then its angular velocity is rad/sec is:	A. 22/7 B. 7 C. 14 D. 21
5	INTELSAT operates at frequencies 4, 6, 11, 14 having unit of	A. KHz B. MHz C. GHz D. BHz
6	In case of planets, the necessary acceleration is provided by:	A. Gravitational force B. Coulomb force C. Frictional force D. None of these
7	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these
8	A 1000 Kg car travelling with a speed of 90 km/hr turns around a curve of radius 0.1 km. The necessary centripetal force comes out to be:	A. $8.1 \times 10^7 \text{ N}$ B. 625 N C. 6250 N D. None of these
9	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. Zero
10	Moment of linear momentum is called.	A. Moment arm B. Moment of inertia C. Inertia D. Angular momentum
11	The net force acting on a 100 kg man standing in an elevator accelerating downward with a $= 9.8 \text{ m sec}^{-2}$ comes out to be	A. 980 N B. 580 N C. 1380 N D. Zero
12	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
13	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
14	A stone is tied to the end of a 20 cm long string is whirled in a horizontal circle. if centripetal acceleration is 9.8 m/sec^2 , then its angular velocity in rad/sec is:	A. 22/7 B. 7 C. 14 D. 21
15	Angular velocity is a:	A. Scalar quantity B. Vector quantity C. Complex quantity D. None of these

16	A car is turning around a corner at 10 m/sec as it travels along an arc of a circle. If value of centripetal acceleration is 10 m/sec^2 in this case, find radius of the circular path:	A. 1 m B. 5 m C. 10 m D. 15 m
17	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them
18	When a body moves along a circular path with constant speed, it has an acceleration, which is always directed	A. Along the tangent B. Towards the centre C. Away from the centre D. None of them
19	Einstein's theory about gravity is better than Newton's because it gave explanation of:	A. Inverse square law B. Bending of light C. Both A and B D. None of above
20	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
