

ECAT Pre General Science Physics Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	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
2	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them
3	Radian is defined as the angle subtended at the center of a circle by an arc of:	A. Length equal to its diameter B. Length equal to its radius C. Any length D. None of these
4	One radian is equal to:	A. 30.3° B. 45.3° C. 50.3° D. 57.3°
5	A point on the rim of a wheel moves 0.2 m where the wheel turns through an angle is 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
6	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
7	Satellites are held in orbits around Earth by its:	A. Gravitational field B. Magnetic field C. Own orbital motion D. Own spin motion
8	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them
9	Direction of angular momentum is determined by:	A. Right hand rule B. Head to tail rule C. Left hand rule D. None of them
10	Angular velocity is a:	A. Scalar quantity B. Vector quantity C. Complex quantity D. None of these
11	A flywheel accelerates from rest to an angular velocity of 7 rad/sec in 7 seconds. Its average acceleration will be:	A. 49 rad/sec^2 B. 1 rad/sec^2 C. 0.16 rev/sec^2 D. Both A and C E. Both B and C
12	Moment of inertia depends upon:	A. Mass B. Selection of axis of rotation C. Both of them D. None of these
13	The rear wheels of an automobile are 38 rev/sec which is reduced to 5 rev/sec in 5 seconds when brakes are applied. Its angular acceleration is:	A. 5 rad/sec^2 B. -10 rad/sec^2 C. -10 rad/sec^2 D. -5 rad/sec^2
14	Circular motion is an example of motion in:	A. One dimension B. Two dimensions C. Three dimensions D. None of these
15	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 these

		D. None of above
16	Moment of linear momentum is called.	A. Moment arm B. Moment of inertia C. Inertia D. Angular momentum
17	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
18	A toy car moves around a circular track of radius 0.3 m at the rate of 120 rev/min. The speed V of the car is:	A. 38 m/sec B. 3.8 m/sec C. 0.6 m/sec D. None of these
19	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
20	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these