

Physics ECAT Pre Engineering Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree 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	Conventional the angular Velocity is Directed at an angle of:	A. 90 90 ° to the axis of rotation B. 30 ° to the axis of rotation C. 0

		D. None of these
11	The rear wheels of an automobile are rotating with an angular velocity of 14 rev/sec which is reduced to 38 rad/sec in 5 second when brakes are applied. Its angular acceleration is:	A. 5 rad/sec ² B10 rev/sec ² C10 rad/sec ² D5 rev/sec ²
12	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
13	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of these
14	A body moving along the circumference of a circle of radius R completes one revolution. The radius of the covered path to the angle subtended at the center is:	A. Radius of the circle B. Twice the radius C. Thrice the radius D. None of these
15	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
16	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
17	Centripetal acceleration is also called acceleration:	A. Tangential B. Radial C. Angular D. None of them
18	Direction of motion in circular motion	A. Changes off and on B. Changes continously C. Does not change D. None of them
19	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
20	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