

ECAT Physics Chapter 5 Circular Motion Online Test

Sr	Questions	Answers Choice
1	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
2	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
3	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
4	When a body moves with a constant speed in a circle:	A. No work is done on it B. No acceleration is produced in the body C. Velocity remains constant D. None of these
5	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
6	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
7	The number of "Earth stations" which transmit signals to satellites and receive signals from them are:	A. 3 B. 24 C. 126 D. 200
8	Direction of motion in circular motion	A. Changes off and on B. Changes continuously C. Does not change D. None of them
9	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
10	Conventionally the angular velocity is directed to an angle of:	A. 90 ° to the axis of rotation B. 30 ° to the axis of rotation C. 0

	The necessary centripetal force comes out to be:	C. 6250 N D. None of these
12	Direction of motion in circular of motion:	A. Changes off and on B. Changes continuously C. Does not change D. None of them
13	Conventionally the angular velocity is directed at an angle of	A. 90° to the axis of rotation B. 30° to the axis of rotation C. 0° to the axis of rotation D. None of the above
14	Angular velocity is a:	A. Scalar quantity B. Vector quantity C. Complex quantity D. None of these
15	The angular speed of a particle moving along a circular path is 5 Pie rad sec ⁻¹ , Its period of motion is:	A. 2.5 sec B. 0.06 sec C. 15.7 sec D. 0.4 sec
16	The useful unit of angular replacement in SI unit is:	A. Degree B. Revolution C. Radian D. Metre
17	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of them
18	When a body moves with a constant speed in a circle:	A. No work is done on it B. No acceleration is produced in the body C. Velocity remains constant D. None of these
19	Satellites are held in orbits around Earth by its:	A. Gravitational field B. Magnetic field C. Own orbital motion D. Own spin motion
20	Which of the following pairs does not have identical dimensions?	A. Torque and energy B. Energy and work C. Momentum and impulse D. Mass and moment of inertia