

## ECAT Physics Chapter 5 Circular Motion Online Test

Sr	Questions	Answers Choice
1	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 <sup>2</sup> B. -10 rev/sec <sup>2</sup> C. -10 rad/sec <sup>2</sup> D. -5 rev/sec <sup>2</sup>
2	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
3	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 <sup>2</sup> , then its angular velocity is rad/sec is:	A. 22/7 B. 7 C. 14 D. 21
4	Centripetal force performs:	A. Maximum work B. Negative work C. Positive work D. None of these
5	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
6	When 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
7	One radian is equal to:	A. 30.3° B. 45.3° C. 50.3° D. 57.3°
8	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these
9	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of these
10	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them
11	Direction of motion _____ in circular motion:	A. Changes off and on B. Changes continuously C. Does not change D. None of them
12	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
13	Angular velocity is a:	A. Scalar quantity B. Vector quantity C. Complex quantity D. None of these
14	In rotational motion, analogue of force F us called:	A. Couple B. Torque C. Mass D. Moment of inertia
15	The useful unit of angular replacement in SI unit is:	A. Degree B. Revolution C. Radian D. Metre

