

ECAT Pre General Science Physics 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 these
2	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
3	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them
4	Angular velocity is a:	A. Scalar quantity B. Vector quantity C. Complex quantity D. None of these
5	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
6	A car is turning around a corner at 10 m/sec as it travels along an arc of 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
7	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 B. -10 rev/sec^2 C. -10 rad/sec^2 D. -5 rev/sec^2
8	The rear wheels of an automobile are rev/sec which is reduced to 38 rad/sec in 5 seconds when brakes are applied. Its angular acceleration is:	A. 5 rad/sec^2 B. -10 rev/sec^2 C. -10 rad/sec^2 D. -5 rev/sec^2
9	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
10	Final velocity of a hoop is _____ the final velocity of a disc having same mass and radius on coming down an inclined plane.	A. Greater than B. smaller than C. Equal to D. None of these
11	Centripetal force performs:	A. Maximum work B. Negative work C. Positive work D. None of these
12	Direction of motion _____ in circular motion	A. Changes off and on B. Changes continuously C. Does not change D. None of them
13	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
14	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
15	A body can have constant velocity when it follows:	A. A circular path B. A rectilinear path C. Trajectory of a projectile

		D. None of these
16	One radian is equal to:	A. 30.3° B. 45.3° C. 50.3° D. 57.3°
17	Formula for calculating moment of inertia of the bodies of one pair is same. Tick the answer.	A. Disc, sphere B. sphere, hoop C. Thin rod, hoop D. Hoop, disc
18	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of them
19	INTELSAT operates at frequencies 4, 6, 11, 14 having unit of	A. KHz B. MHz C. GHz D. BHz
20	The instantaneous acceleration of a body moving with constant speed in a circle:	A. Remains constant B. Is called centripetal acceleration C. Tangential acceleration D. None of these