

## 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	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 $10 \text{ m/sec}^2$ in this case, find radius of the circular path:	A. 1 m B. 5 m C. 10 m D. 15 m
3	An axis of rotation	A. Is a straight line B. Is normal to the plane of rotation C. Passes through pivot point O D. All of them
4	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
5	The number of countries who manage the largest satellite system is:	A. 3 B. 24 C. 126 D. 200
6	Centripetal acceleration is also called _____ acceleration	A. Tangential B. Radial C. Angular D. None of them
7	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to degree D. none of these
8	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these
9	Moment of linear momentum is called.	A. Moment arm B. Moment of inertia C. Inertia D. Angular momentum
10	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
11	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these
12	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 above
13	One radian is equal to:	A. $30.3^\circ$ B. $45.3^\circ$ C. $50.3^\circ$ D. $57.3^\circ$
14	A point on the rim of a wheel moves 0.2 m when the wheel turns through an angle of 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
15	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

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16	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
17	When a body is moves along a circular path with constant speed, it has an acceleration, which is always directed:	A. Along the tangent B. Toward the centre C. Away from the centre 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	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 $10 \text{ m/sec}^2$ in this case, find radius of the circular path:	A. 1 m B. 5 m C. 10 m D. 15 m
20	Direction of motion _____ in circular of motion:	A. Changes off and on B. Changes continuously C. Does not change D. None of them

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