

ECAT Pre General Science Physics Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	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
2	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
3	Moment of inertia depends upon:	A. Mass B. Selection of axis of rotation C. Both of them D. None of these
4	INTELSAT operates at frequencies 4, 6, 11, 14 having unit of	A. KHz B. MHz C. GHz D. BHz
5	In case of planets, the necessary acceleration is provided by:	A. Gravitational force B. Coulomb force C. Frictional force D. None of these
6	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
7	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
8	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
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10	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
11	Angular momentum is a:	A. vector quantity B. Imaginary quantity C. Complex Quantity D. Scalar Quantity
12	The rear wheels of an automobile are 50 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 rad/sec^2 C. -10 rad/sec^2 D. -5 rad/sec^2
13	The useful unit of angular replacement in SI unit is:	A. Degree B. Revolution C. Radian D. Metre
14	The number of "Earth stations" which transmit signals to satellites and receive signals from them are:	A. 3 B. 24 C. 126 D. 200
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	Direction of motion _____ in circular motion	A. Changes off and on B. Changes continuously C. Does not change D. None of them
17	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
18	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of them
19	One radian is:	A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of these
20	Centripetal acceleration is also called _____ acceleration:	A. Tangential B. Radial C. Angular D. None of them