

Physics Fsc Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	A body travelling in a circle at constant speed.	A. Has constant velocity B. Has an inward radial acceleration C. Is not accelerated D. Has an outward radial acceleration
2	Every point of rotating rigid body has	A. Same angular velocity B. Same linear velocity C. Same linear acceleration D. Same linear distance
3	In one revolution the angular displacement covered is.	A. 60° B. 90° C. 360° D. 180°
4	Direction of angular acceleration is always along.	A. x-axis B. y-axis C. z-axis D. The axis of rotation
5	When a body moves in a circle the angle between its linear velocity and angular velocity is always.	A. Zero B. 60° C. 45° D. 90°
6	If arc distance is equal to two times of radius of circle, then angle traced will be.	A. 30° B. 40° C. 1 rad D. 2 rad
7	A body rotating with angular velocity of 2 rad.s^{-1} and linear velocity is 2 ms^{-1} , then radius of circle is.	A. 1 m B. 0.5 m C. 2 m D. 2.5 m
8	When a body is whirled in a horizontal circle by means of a string. The centripetal force is supplied by	A. Mass of a body B. Velocity of a body C. Tension in the string D. Air friction
9	SI Unit of angular momentum is.	A. Js B. Kgmsec^3 C. $\text{kgm}^2\text{s}^{-1}$ D. kgms^{-2}
10	The moment of inertia of a body depends upon	A. Mass of the body and its distribution about axis of rotation B. Volume of the body C. Kinetic energy of the body D. Angular momentum of the body
11	SI Unit of angular displacement	A. Meter B. Radian C. Kilometer D. Centimeter
12	A stone at the end of a long string is whirled in a vertical circle at a constant speed. The tension in the string will be minimum when the stone is.	A. At the top of the circle B. Halfway down C. At the bottom of the circle D. Anywhere in the circle
13	The force needed to bend the normally straight path of the particle into a circle is.	A. Gravitational force B. Frictional force C. Centrifugal force D. Centripetal force
14	When a ball is rotating in a circular path at the end of a string is released. It will move.	A. To the centre B. Away from the centre C. Along the tangent D. In a circular path

U. $\times$ Opposite to the motion

15	A wheel of radius 2 m turns through an angle of 57.3° . It lays out a tangential distance.	A. 2 m B. 4 m C. 57.3 m D. 114.6 m
16	The dimension of angular velocity is.	A. $[LT^{-1}]$ B. $[LT^{-2}]$ C. $[T^{-1}]$ D. $[L^{-1}T]$
17	Law of conservation of angular momentum is important in.	A. Diving B. Gymnastics C. Ice Skating D. All of these
18	The rate of change of angular velocity is.	A. Angular velocity B. Angular acceleration C. Angular displacement D. Angular speed
19	The ratio of angular speed of minute's hand and hour's hand of watch is.	A. $12:1$ B. $1:6$ C. $6:1$ D. $1:12$
20	An astronaut is orbiting around the Earth in a large capsule. Then.	A. He will be in a state of weightlessness with respect to capsule B. He is freely falling towards the Earth C. A ball projected at an angle has a straight line path as observed by him D. All the above