

Physics Fsc Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	Moment of inertia depends upon	A. Mass B. Selection of axis of rotation C. Both a and b D. Speed of the body
2	A wheel of radius 50 cm having an angular speed 5 rad/sec will have linear speed.	A. 1.5 ms⁻¹ B. 2.5 ms⁻¹ C. 3.5 ms⁻¹ D. 4.5 ms⁻¹
3	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
4	A stone at the end of long string is whirled in 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 circle D. Any where in the circle
5	Law of conservation of angular momentum is important in.	A. Diving B. Gymnastics C. Ice Skating D. All of these
6	Rotational analogue of force is.	A. Torque B. Velocity C. Mass and weight D. Momentum
7	A wheel of radius 2 m turns through an angle of 57.3° it lay out a tangential distance.	A. 2m B. 4 m C. 57.3 m D. 114.6 m
8	The mud flies off the tyre of a moving bicycle which is along.	A. Tangent B. Normal C. To the centre D. Perpendicular
9	A 1000 kg truck is turning round a corner of radius 100 m with speed 72 km/h, centripetal force isN.	A. 2 B. 40 C. 400 D. 4000
10	The work done by the centripetal force is.	A. Zero B. Minimum C. Maximum D. Negative work
11	In the absence of external force, the change in momentum is.	A. Zero B. Constant C. Decreasing D. Increasing
12	The time rate of change of angular displacement is called.	A. Linear velocity B. Linear Acceleration C. Angular Acceleration D. Angular velocity
13	The moment of inertia of 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
14	When a ball in rotation in a circular path at the end of string is released. It will move.	A. To the centre B. A way from the centre C. Along the tangent D. Opposite to the motion

15	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
16	An object in uniform circular motion makes 10 revolutions in 2 seconds. Which of the following statements is true.	A. Its period is 2.0 s B. Its period is 20 s C. Its frequency is 5 Hz D. Its frequency is 0.2 Hz
17	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. $1:12$
18	A body of mass 10 kg is allowed to fall freely its apparent weight becomes.	A. 0 B. 8.9 N C. 9.8 N D. 10 N
19	The dimension of angular velocity is.	A. $[LT^{-1}]$ B. $[LT^{-2}]$ C. $[T^{-1}]$ D. $[L^{-1}T]$
20	A bottle of soda water is grasped from the neck and swung briskly in a vertical circle. Near which portion of the bottle do the bubbles collect.	A. Near the bottom B. In the middle of bottle C. Bubbles remain distributed throughout D. Near the neck of the bottle