

Physics ICS Part 1 Chapter 3 Online Test

Sr	Questions	Answers Choice
1	The direction of motion of a particle moving in a circle is along the	<p>A. Normal</p> <p>B. Tangent</p> <p>C. Away from centre</p> <p>D. Towards the centre</p>
2	Moment of inertia depends upon	<p>A. Mass</p> <p>B. Selection of axis of rotation</p> <p>C. Both a and b</p> <p>D. Speed of the body</p>
3	The time rate of change of angular displacement is called.	<p>A. Linear velocity</p> <p>B. Linear Acceleration</p> <p>C. Angular Acceleration</p> <p>D. Angular velocity</p>
4	When a ball is rotating in a circular path at the end of string is released. It will move.	<p>A. To the centre</p> <p>B. A way from the centre</p> <p>C. Along the tangent</p> <p>D. Opposite to the motion</p>
5	One radian is equal to.	<p>A. 57.3°</p> <p>B. 56.3°</p> <p>C. 360°</p> <p>D. 58.3°</p>
6	Direction of angular acceleration is always along.	<p>A. x -axis</p> <p>B. y -axis</p> <p>C. z -axis</p> <p>D. The axis of rotation</p>
7	An astronaut is orbiting around the Earth in a large capsule. Then.	<p>A. He will be in a state of weightlessness with respect to capsule</p> <p>B. He is freely falling towards the Earth</p> <p>C. A ball projected at an angle has a straight line path as observed by him</p> <p>D. All the above</p>
8	A body travelling in a circle at constant speed.	<p>A. Has constant velocity</p> <p>B. Has an inward radial acceleration</p> <p>C. Is not accelerated</p> <p>D. Has an outward radial acceleration</p>
9	The minimum velocity necessary to put a satellite into the orbit is called.	<p>A. Terminal velocity</p> <p>B. Critical velocity</p> <p>C. Artificial velocity</p> <p>D. Angular Velocity</p>
10	A body of mass 10 kg is allowed to fall freely its apparent weight becomes.	<p>A. 0</p> <p>B. 8.9 N</p> <p>C. 9.8 N</p> <p>D. 10 N</p>
11	The work done by the centripetal force is.	<p>A. Zero</p> <p>B. Minimum</p> <p>C. Maximum</p> <p>D. Negative work</p>
12	If arc distance is equal to two times of radius of circle, then angle traced will be.	<p>A. 30°</p> <p>B. 40°</p> <p>C. 1 rad</p> <p>D. 2 rad</p>
13	The force needed to bend the normally straight path of the particle into a circle is.	<p>A. Gravitational force</p> <p>B. Frictional force</p> <p>C. Centrifugal force</p> <p>D. Centripetal force</p>
14	A bottle of soda water is crasped from the neck and swung briskly in vertical circle.	<p>A. Near the bottom</p> <p>B. In the middle of bottle</p>

14	Near which portion of the bottle do the bubbles collect.	<p>C. Bubbles remain distributed throughout</p> <p>D. Near the neck of the bottle</p>
15	A man inside the artificial satellite feels weightlessness because the force of attraction due to the earth is.	<p>A. Zero at pole</p> <p>B. Balanced by the force of attraction due to the moon</p> <p>C. Equal to the centripetal force</p> <p>D. Non-effective due to some particular design of the satellite</p>
16	Rotational analogue of force is.	<p>A. Torque</p> <p>B. Velocity</p> <p>C. Mass and weight</p> <p>D. Momentum</p>
17	The ratio of angular speed of minute's hand and hour's hand of watch is.	<p>A. 12:1</p> <p>B. 1:6</p> <p>C. 6:1</p> <p>D. 1:12</p>
18	In one revolution the angular displacement covered is.	<p>A. 60°</p> <p>B. 90°</p> <p>C. 360°</p> <p>D. 180°</p>
19	A 1000 kg truck is turning round a corner of radius 100 m with speed 72 km/h, centripetal force isN.	<p>A. 2</p> <p>B. 40</p> <p>C. 400</p> <p>D. 4000</p>
20	The moment of inertia of a body depends upon	<p>A. Mass of the body and its distribution about axis of rotation</p> <p>B. Volume of the body</p> <p>C. Kinetic energy of the body</p> <p>D. Angular momentum of the body</p>