

Turning Effect of Forces

Sr	Questions	Answers Choice
1	The correct order of comparison for the terminal speeds of a raindrop snowflake, and hailstone is.	A. Raindrop= Snowflake = Hailstone B. Raindrop>Snow flake>Hailstone C. Hailstone>SRaindrop>Snowflake D. Snowflake>FRaindrop>Hailstone
2	A cylinder resting on its circular bases is in	A. Neutral equilibrium B. Stable equilibrium C. Unstable equilibrium D. None of these three
3	Moment of force is called	A. Couple B. Moment arm C. Torque D. Couple arm
4	A force F is making an angle of 60° with x-axis. Its y-component is equal to.	A. F B. $F \cos 60^\circ$ C. $F \sin 60^\circ$ D. $F \tan 60^\circ$
5	In stable equilibrium the centre of gravity of the body lies.	A. At the highest position B. At any position C. Outside the body D. At the lowest position
6	You are trying to loosen a nut using a spanner, but it is not working. In order to open the nut, you need to.	A. Use plastic and soft spanner B. Use a spanner of small length C. Insert a pipe to increase length of spanner D. Tie a rope with spanner
7	A seesaw balances perfectly with two children of equal weight sitting at equal distances from the fulcrum. If one child moves closer to the fulcrum.	A. The seesaw topples B. The seesaw tips towards the child who stayed further away C. The seesaw tips towards the child who moved closer D. The seesaw remains balanced
8	The force that always changes direction of velocity and not its magnitude is called.	A. Electrical force B. Centripetal force C. Gravitational force D. Friction
9	A body in equilibrium must not have	A. Speed B. Velocity C. Acceleration D. Quantity of motion
10	For an object moving with terminal velocity, its acceleration.	A. First increases then decreases B. Is zero C. Increases with time D. Decreases with time
11	You throw a net, it opens fully underwater, spreading out its mesh evenly. Compared to the moment it left your hand, where is the net's center of mass now.	A. Unchanged from its position when thrown B. At the same depth but slightly shifted horizontally C. Higher in the water column D. Lower in the water column
12	A uniformly rotating fan is said to be in	A. Static equilibrium only B. Dynamic equilibrium only C. Both in static and dynamic equilibrium D. Not in equilibrium
13	A man walks on a tight rope. He balances himself by holding a bamboo stick horizontally. It is an application of	A. Law of conservation of momentum B. Principle of moments C. Newton's third law of motion D. Newton's second law of motion
14	Centripetal force is given by	A. rF B. $\frac{mv^2}{r}$

		<p>C. mv^2/r</p> <p>D. $r F \cos \theta$</p>
15	A shopkeeper sells his articles by a balance having unequal arms of the pans. If he puts the weights in the pan having shorter arm, then the customer.	<p>A. Gains</p> <p>B. Loses</p> <p>C. Neither loses nor gains</p> <p>D. Not certain</p>
16	It is more difficult to walk on a slippery surface than on a non-slippery one because of	<p>A. Lower weight</p> <p>B. Increased friction</p> <p>C. Reduced friction</p> <p>D. High grip</p>
17	A satellite of mass 'm' is revolving around the earth with an orbital speed 'v'. If mass of the satellite is doubled, its orbital speed will become.	<p>A. Double</p> <p>B. Half</p> <p>C. One fourth</p> <p>D. Remain the same</p>
18	If a body is at rest or moving with uniform rotational velocity, then torque acting on the body will be.	<p>A. Zero</p> <p>B. Maximum</p> <p>C. Minimum</p> <p>D. Infinite</p>
19	The reason that a car moving on a horizontal road gets thrown out of the road while taking a turn is.	<p>A. The reaction of ground</p> <p>B. Rolling friction between tyre and road</p> <p>C. Lack of sufficient centripetal force</p> <p>D. Gravitational force</p>
20	A tightrope walker is carrying a long pole while walking across a rope. The stability of the walker is affected if the pole is	<p>A. Short and placed horizontally</p> <p>B. Long and placed horizontally</p> <p>C. Short and placed vertically</p> <p>D. Long and placed vertically</p>