

Turning Effect of Forces

Sr	Questions	Answers Choice
1	The centre of mass of a body	A. Lies always inside the body B. May lie within, outside or on the surface C. Lies always on the surface of the body D. Lies always on the surface of the body.
2	The reason that a car moving on a horizontal road gets thrown out of the road while taking a turn is.	A. The reaction of ground B. Rolling friction between tyre and road C. Lack of sufficient centripetal force D. Gravitational force
3	Centripetal force is given by	A. rF B. mv^2/r C. mv^2/r^2 D. $r F \cos \theta$
4	The correct order of comparison for the terminal speeds of a raindrop, snowflake, and hailstone is.	A. Raindrop = Snowflake = Hailstone B. Raindrop > Snowflake > Hailstone C. Hailstone > Raindrop > Snowflake D. Snowflake > Raindrop > Hailstone
5	Moment of force is called	A. Couple B. Moment arm C. Torque D. Couple arm
6	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
7	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. $F \tan 60^\circ$
8	A tightrope walker is carrying a long pole while walking across a rope. The stability of the walker is affected if the pole is	A. Short and placed horizontally B. Long and placed horizontally C. Short and placed vertically D. Long and placed vertically
9	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.	A. Double B. Half C. One fourth D. Remain the same
10	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
11	A car drives at steady speed around a perfectly circular track	A. The car's acceleration is zero B. The net force on the car is zero C. Both the acceleration and net force on the car point inward D. Both the acceleration and net force on the car point outward
12	When line of action of the applied force passes through its pivot point then moment of force acting on the body is	A. Maximum B. Minimum C. Infinite D. Zero
13	A particle is simultaneously acted upon by two forces of 4 and 3 newtons. The net force on the particle is.	A. Between 1 N and 7 N B. 1 N C. 5 N D. 7 N

14	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.	A. Gains B. Loses C. Neither loses nor gains D. Not certain
15	For an object moving with terminal velocity, its acceleration.	A. First increase then decreases B. Is zero C. Increase with time D. Decrease with time
16	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
17	It is more difficult to walk on a slippery surface than on a non-slippery one because of	A. Lower weight B. Increased friction C. Reduced friction D. High grip
18	A body in equilibrium must not have	A. Speed B. Velocity C. Acceleration D. Quantity of motion
19	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
20	A cylinder resting on its circular bases is in	A. Neutral equilibrium B. Stable equilibrium C. Unstable equilibrium D. None of these three