

Dynamic

Sr	Questions	Answers Choice
1	An object with a mass 5 kg moves at constant velocity of 10 ms ⁻¹ . A constant force then acts for 5 seconds on the object and gives it a velocity of 2 ms ⁻¹ . In the opposite direction, the force acting on the object is.	A. -12 N B. 5 N C. -10 N D. -15 N
2	A force acts on a boy for 2 seconds and it produces 50 kg m/s change in its momentum. The force acting on the boy	A. 25 N B. 100 N C. 2 N D. 50 N
3	A bucket having some water is revolved in vertical circle. Water does not spill out, even the bucket is upside down, due to.	A. Centrifugal force on water B. Weight of water C. Inertia of water D. Action and Reaction balance each other
4	Inertia of a body is related to which of the following quantities	A. Friction B. Force C. Mass D. Weight
5	Which of the following is a non-contact force.	A. Friction B. Electrostatic force C. Air resistance D. Tension in the string
6	An object will continue its motion with constant acceleration until	A. The resultant force is at right angle B. The resultant force on it begins to increase C. The resultant force on it begins to decrease D. The resultant force is at right angle to its tangential velocity
7	A particle of mass m moving with a velocity v collides with another particle of the same mass at rest. The velocity of the first particle after collision is.	A. 0 B. v C. $-v$ D. $-v/2$
8	A force of 5 N is applied to a body weighing 10 N. Its acceleration in m/s ² is	A. 0.5 B. 2 C. 5 D. 50
9	Thrust force is a consequence of which law of motion.	A. First B. Second C. Third D. Fourth
10	SI unit of linear momentum is	A. kg m s ⁻¹ B. kg m s ⁻² C. kg m ² s ⁻¹ D. Nm
11	The rate of change of momentum of a free falling body is equal to its.	A. Size B. Velocity C. Weight D. Momentum
12	The force which moves the car is	A. Force of friction between road tyre B. Force developed by engine C. Uniform velocity D. Water split on the road
13	N kg ⁻¹ is equivalent to	A. m s ⁻¹ B. m s ⁻² C. kg m s ⁻¹ D. kg m s ⁻²
14	At the fairground, the force that balances your weight is	A. Gravitational force B. Electrostatic force C. Centripetal force D. Frictional force

15	A lubricant is usually introduced between two surfaces to decrease friction. The lubricant.	<ul style="list-style-type: none"> A. Decreases temperature B. Provides rolling friction C. Prevents direct contact of the surfaces D. Acts as ball bearings
16	An object of mass 1 kg placed at earth's surface experiences a force of.	<ul style="list-style-type: none"> A. 1 N B. 9.8 N C. 100 N D. Any Value
17	Conservation of Linear momentum is equivalent to.	<ul style="list-style-type: none"> A. Newton's First law of motion B. Newton's second law of motion C. Newton's third law of motion D. None of these
18	A large force acts on an object for a very short interval of time. In the case, it is easy to determine.	<ul style="list-style-type: none"> A. Magnitude of force B. Time interval C. Product of force and time D. None of these
19	When a hanging carpet is beaten by stick Dust flies off the carpet It is mainly due to.	<ul style="list-style-type: none"> A. Action force on carpet B. Inertia of dust C. Reaction force by carpet D. Rate of change of momentum of carpet
20	Net force on the body falling in air with uniform velocity is equal to.	<ul style="list-style-type: none"> A. Zero B. Weight of the body C. Air resistance on the body D. Difference of weight of body and air resistance on it.