

JSUNIL TUTORIAL PANJABI COLONY GALI 01

CBSE TEST PAPER-01

SCIENCE & TECHNOLOGY (Class-09)

Motion- Numerical

- Q. 1. How much force is needed to accelerate a trolley of mass 20g through 1 m/s^2 ?
- Q. 2. A force of 100N acts on a mass of 25 kg for 5 s .What velocity does it generate?
- Q. 3. A bullet leaves a rifle with a velocity of 100m/s and the rifle of mass 2.5 kg recoils with a velocity of 1m/s.
Find the mass of the bullet?
- Q. 4. A certain force acting on a mass of 15kg for 3s, gives it a velocity of 2m/s. Find the magnitude of force?
- Q. 5. A cricket ball of mass 0.15 kg is moving with a velocity of 1.2m/s . Find the impulse on the ball and average force applied by the player if he is able to stop the ball in 0.18s?
- Q. 6. A motor car of mass 200kg is moving with a certain velocity . It is brought to rest by the application of brakes, within a distance o f 20m when the average resistance being offered to it is 500N.What was the velocity of the motor car?
- Q. 7. A body of mass 0.5kg undergoes a change of velocity of 4cm/s in 4s What is the force acting on it?
- Q. 8. A force of 8N acting on an 8kg mass for 4s provides its some velocity. Calculate the velocity?
- Q. 9. What would be the weight of a body of mass 50kg on the surface of the moon, where $g = 1.6\text{m/s}^2$ what would be its mass?
- Q. 10. A boy jumps a distance of 2m on the surface of the earth. What distance will he jump on the surface of the moon where g is $1/6$ th of the value on the surface of the earth?
- Q. 11. Two bodies of mass 1kg and 2 kg moving in the direction opposite to each other with a speed 5m/s collide. Calculate the total momentum of the system before collision?
- Q. 12. A bullet of mass 15g leaves the barrel of a gun with a velocity of 120m/s. The gun recoils with a velocity of 1m/s. Find the mass of the gun?
- Q. 13. A force of 3N acts on a mass of 0.5kg at rest for 10s. Find the final velocity and the momentum of the body after 10s?