**Forces and Laws of Motion**

**Practice Paper 1**

1. What is the S.I. unit of momentum?
2. Define force and write its S.I. unit
3. If the initial velocity is zero then what is the force acting on the body?
4. Define the S. I unit of force.
5. State Newton’s second law of motion?
6. What is the momentum of a body of mass 2Kg moving with a velocity of 15 ms-1
7. What are the various types of forces?
8. What is the acceleration produced when a force of 25N acts on a mass of 500g?
9. A force of 15 N acts for 5s on a body of mass 5Kg which is initially at rest. Calculate.

a) final velocity of the body

b) the displacement of the body

1. A scooter is moving with a velocity of 20m/s when brakes are applied. The mass of the scooter and the rider is 180Kg. the constant force applied by the brakes is 500N.

a) How long should the brakes be applied to make the scooter comes to a halt?

b) How far does the scooter travel before it comes to rest?

1. State Newton’s third law of motion and how does it explain the walking of man on the ground?
2. A stone is dropped from a 100m high tower. How long does it take to fall?

a) the first 50m and

b) the second 50m.