

## Class -9 SUBJECT-PHYSICS DATE 25.05.2020 PAWAN KR.

---

### HOMEWORK

#### CHAPTER (FORCE AND LAWS OF MOTION)

Q.N.1 A hockey ball of mass 200 gram travelling at 10 metre per second is struck by hockey stick so as to return it along its original path with a velocity at 5 metre per second. calculate the change of momentum occurred in the motion of the hockey ball by the force applied by the hockey stick.

Q. N. 2 A bullet of mass 10 gram travelling horizontally with a velocity of 150 metre per second strikes a stationary wooden block and come to rest in 0.03 second. calculate the distance of penetration of the bullet into the block. Also calculate the magnitude of the force exerted by the wooden block on the bullet .

Q. N. 3. An object of mass 1 kilogram travelling in a straight line with a velocity of 10 metre per second collides with ,and sticks another stick to, a stationary wooden block of mass 5 kilogram.then they both move off together in the same straight line .calculate the total Momentum just before the impact and just after the impact. Also calculate the velocity of the combined object.

Q. N. 4 An object of mass 100 gram is accelerated uniformly from a velocity of 5 metre per second to 8 metre per second in 6 seconds. calculate the initial and final momentum of the object .Also find the magnitude of force exerted on the object.

•