

## Test

Q1-

A1- Galileo observe that an object cannot change its shape, direction or position until there is no external force applied on it. In another ball he roll down his ball from top of the inclined plane. He observe that a object will move automatically because of gravitational force applied only when it is on down falling surface.

Q2-

A2- mass = 1kg

$$25 \times 1000 \text{ g} = \frac{25}{1000} = 0.025 \text{ kg}$$

$$\text{Momentum} = \text{mass} \times \text{velocity}$$

$$= 0.025 \times 0.1$$

$$= 2.5 \times 10^{-3} \text{ kg} \cdot \text{m/s}$$

Q3-

A3- SI unit of momentum is  $\text{kg} \cdot \text{m/s}$ .

Q 4-

A4- A force is said to be 1 N when there is force applied on an object of 1 newton.

Q 5-

A5- While ~~not~~ playing cricket we can change the direction of moving object. ~~by~~ When bowler ~~throws~~ throws the ball then batsman can change the direction of ball where he want.

Q 6-

A6- Some leaves fall from the tree when we shake branch is because of gravitational force act on it.

Q 7-

A7- It is advised to ~~only~~ tie luggage with rope because it will not move from its place. Because when bus start the force applied on it is in north direction and force of friction ~~is~~ oppose it toward south.

Q 8-

A8- Momentum is the rate of change of velocity of the mass of an object.

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Momentum = Force applied

$$F = m \times a$$

$$F = \frac{5000}{5}$$

$$\text{Mass} = 1000 \text{ kg}$$

Q9-

A9-

$$M = 1000 \text{ kg}$$

$$t = 20 \text{ m/s}$$

$$s = 50 \text{ m/s}$$

$$\text{retardation force} = \frac{mv - mt}{T}$$

$$= \frac{1000 \times 50 - 1000 \times 0}{20}$$

$$= \frac{950 - 1000}{20}$$

$$= \frac{-50}{20}$$

$$= -2.5 \text{ m/s}$$

Q10-  
A10-

$$\text{Force} = m \times a$$

$$m = 70g = \frac{70}{1000} = .070 \text{ kg}$$

$$a = 0.5$$

$$= ~~0.49 \text{ N}~~ 0.40 \text{ N}$$

Q11-

A11-

$$M = 10000 \text{ kg}$$

$$\sqrt{2}, \text{ Force} = ~~M \times a~~ \quad m \times g$$

$$= ~~10000 \times 50 = 10000~~$$

$$= \frac{10000 \times 10}{50}$$

$$= \frac{100000}{50}$$

$$= \frac{2000}{16} \text{ N}$$

$$= 200 \text{ N}$$

Q12-  
A12-

Date \_\_\_/\_\_\_/\_\_\_

Q12-

A2-

$$\frac{\cancel{P_2} - \cancel{P_1}}{\cancel{T_2} - \cancel{T_1}} \quad \frac{P_2}{P_1}$$

$$\text{ii) } \frac{P_2 - P_1}{T_2 - T_1}$$

$$\text{iii) } \frac{P_2 - P_1}{T_2 - T_1}$$

~~P~~ P = Momentum

v = velocity

T = Time

N = Newton.