

INTERNATIONAL INDIAN SCHOOL,BURAIDAH

FORCE AND LAWS OF MOTION

1. The S.I. unit of force is

I. Kgm/s

II. Kgm/s²

III. Newton

IV. Newton-meter

2. What do we get by the product of mass and velocity?

I. Force

II. Inertia

III. Momentum

IV. Newton

3. The rate of change of momentum of an object is proportional to

I. Mass of the body

II. Velocity of the body

III. Net force applied on the body

IV. None of these

4. If two balls of same masses are dropped on sand, the depths of penetration is same if

I. Heavier ball is dropped faster than lighter ball

II. Lighter ball is dropped faster than heavier ball

III. The product 'mv' is same for both bodies

IV. None of these

5. A coin placed on a card (rested at the edges of the glass) remains at rest because of

I. Inertia of rest

II. Two forces act on the coin which balance each other

III. No unbalanced force acts on it

IV. All of these

6. A fielder giving a swing while catching a ball is an example of

- I. Inertia
- II. Momentum
- III. Newton's II law of motion
- IV. Newton's I law of motion

7. Action and reaction forces

- I. Act on the same body
- II. Act on different bodies
- III. Act in same direction
- IV. Both I and III

8. When we pedaling the bicycle it stops because

- I. The earth's gravitational force acts on it
- II. It is not accelerated
- III. No unbalanced force acts on it
- IV. Frictional force acts on it

9. A football and a stone has same mass

- I. Both have same inertia
- II. Both have same momentum
- III. Both have different inertia
- IV. Both have different momentum

ANSWER THE FOLLOWING:

- 1. What do you mean by law of conservation of momentum?
- 2. How do safety belts of cars help in preventing accidents?
- 3. Explain how momentum gets conserved in collision of two bodies?
- 4. Explain inertia and momentum in detail.
- 5. Define force and its various types. What is its unit?
- 6. Give three examples exhibiting inertia in our daily life.
- 7. What change will a force bring in a body?

8. What is a balanced force?