

PHYSICS; FORCE AND FRICTION (QUESTION-ANSWERS)

1. What do you understand by a force? Write its SI unit.

Ans. A force is a pull or push acting upon an object.

The SI unit of force is Newton (N).

2. What is the effect of force on the mass of an object?

Ans. Mass is a constant quantity for a particular object and it does not change with the force applied.

3. Give an example of a contact force.

Ans. An example of contact force is muscular force.

4. Give another name for non-contact force.

Ans. The other name for non-contact force is action-at-a-distance force.

5. Why does a 'charged' balloon stick to a wall?

Ans. A charged balloon sticks to a wall due to electrostatic force.

6. Why is magnetic force considered as an action-at-a-distance force?

Ans. Magnetic force comes into play even though the magnet and the iron pins are not in direct contact with each other.

7. Define rolling friction and give an example where rolling friction comes into play.

Ans. Rolling friction is the force resisting the motion when a body rolls on a surface.

Eg. If heavy objects are made to roll over a surface to move them from one place to another, rolling friction comes into play.

8. How can sliding friction be changed into rolling friction easily?

Ans. By the use of rollers and wheels with ball bearings, we can change sliding friction into rolling friction easily.

9. What is the basic principle for increasing friction?

Ans. The basic principle for increasing friction is to make the surface rough.

10. Why do wrestlers rub a special substance on their hands before getting into the ring?

Ans. Wrestlers often rub a special substance on their hands before a wrestling session in order to prevent their hands from slipping over their opponent's body.

11. What is 'streamlining'?

Ans. Streamlining means giving a special shape to objects so that they may experience minimum drag while travelling through air or water.

A streamlined body has a rounded front and goes narrower along its length.