KALPAVRUKSHA MODEL SCHOOL

Answers of Assignments-3

Class: VIII **Sub: Physics** **Date: 31.07.2021**

Topic: FORCE AND FRICTION

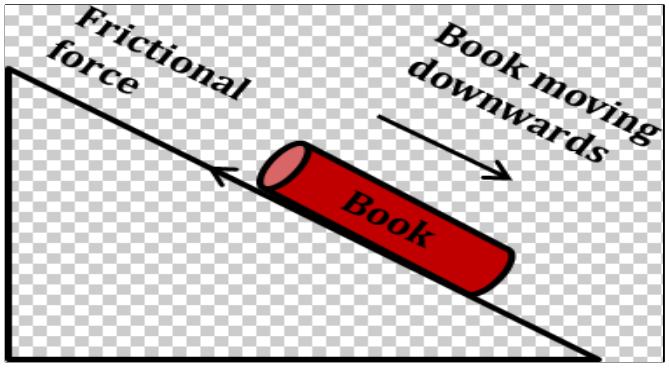
I. Answers:

1. **Define contact and non-contact forces.**
   ANS: **Contact force:** Forces which act only when there is physical contact between two interacting objects are known as Contact forces.
   Non-contact force: Forces which can act without physical contact between objects, i.e. those that can act from a distance, are called non-contact forces or field forces.

2. **Whether you run, walk, stand still, sit, or lie down, there is force acting on your body all the time. Name that force.**
   ANS: Gravitational force is acting on your body all the time whether you run, walk, stand still, sit, or lie down.

3. **What kind of friction comes into play:**
   (a) when a block of wood kept on table moves slowly- Sliding friction
   (b) When a block of wood kept on table just tends to move (or slip)-static friction
   (c) When a block of wood kept on cylindrical iron rods moves-rolling friction

4. **Suppose your writing desk is tilted a little. A book kept on it starts sliding down. Show the direction of frictional force acting on it.**
   ANS: The force of friction always opposes the motion of one object over another object.So, the force of friction acts in a direction opposite to the direction in which an object moves.



5. **Iqbal has to push a lighter box and Seema has to push a similar heavier box on the same floor. Who will have to apply a larger force and why?**
   ANS: Seema has to apply larger force because her box is heavier than the iqbal box.

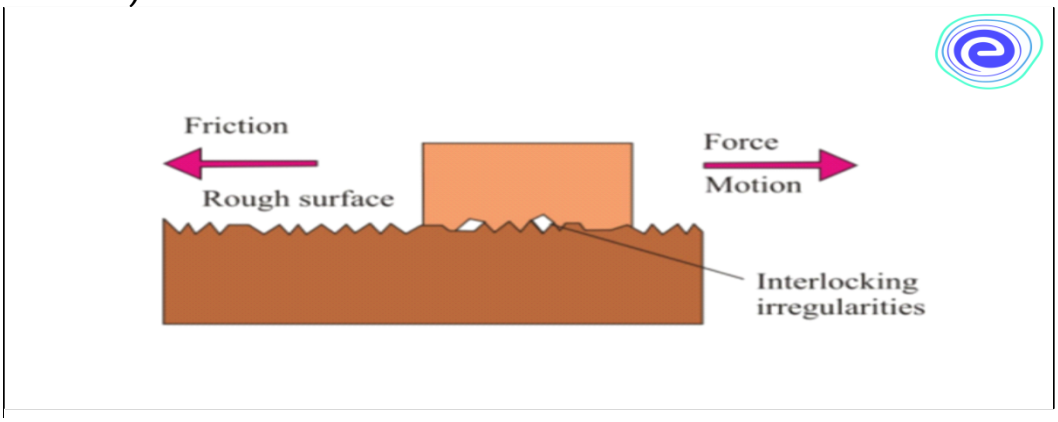
6. {a} least friction-smooth surface
   {b} too much friction-rough surface

7. **What is the direction of force of friction acting on a moving object?**
   ANS: the direction of force of friction acting on a moving object is opposite to the direction of motion of the object.

8. **When a pencil cell is released from a certain point on an inclined wooden board, it travels a distance of 35 cm on floor A before it comes to rest. When the same pencil cell is released from the same point on the same inclined board, it travels a distance of 20 cm on floor B before coming to rest. Which floor, A or B, offers greater friction? Give reasons for your answer.**
   ANS: Floor B applies greater friction because it covers less distance than its irregular surface.

9. **What is the cause of friction? Explain with the help of a labeled diagram.**
   ANS: causes of friction
   a) Nature of the surface in contact.
   b) Mass of the object.

a)



b)