

Q:- 13/ What do you understand by the term friction?

Ans - Friction is the force that opposes the relative motion between the two surfaces in contact with each other. It is the force which slows down the motion of a moving body in contact with the surface of another body is called the frictional force or the force of friction. This force always opposes the motion and it always acts in a direction opposite to the direction of motion.

Q:- 14/ Give an example to illustrate the existence of force of friction:-

Ans -> If we stop paddling our bicycle, it gradually slows down and ultimately stops after moving for a few seconds, this happens due to frictional force between bicycle tyres and the ground.

Q:- 15/ List the effects of friction:-

Ans -> Effect of friction:-

- (i) Friction is a force which opposes motion.
- (ii) Friction always acts in a direction opposite to the direction of motion.

(iii) It produces heat, that helps in heating parts of any object or warm ourselves.

(iv) friction causes wear and tear.

Q:-> Explain with Example how friction opposes motion:-

Ans-> If we roll a ball on the ground, it gradually slows down and after travelling a certain distance, it stops. The reason is that the force of friction between the ball and the ground opposes the motion of the ball and brings it to stop.

Q:-> 'Friction always acts in a direction opposite to the direction of motion'. Justify the statement by giving an example.

Ans:- If we move the box to the right, the friction acts towards the left and if we move the box to the left, the friction acts towards the right.

Q:-> How can you prove friction produces heat?  
Give an example.

Ans - If we rub our palms, they become warm. Similarly it is due to friction that the moving parts of a machine get warm or heated.

In ancient days, people used to produce fire by rubbing two sticks against each other. The lighting of a match stick by rubbing it on a rough surface, is also due to friction. Thus, friction produces heat.

