# Friction

Study the lesson and answer the questions given below.

1) The reason for not moving a desk, when a little force is applied is,
   i. The force given by the desk to the ground is equal to the force given by us.
   ii. The force given by the ground to the desk is equal to the force given by us.
   iii. The weight of the desk is high.
   iv. The direction of the force given is incorrect.

2) When the desk is not moving due to the little force given by us, the two forces given by us and by the ground to the desk are,
   i)equal ii)opposite iii)balanced iv)all the above things happen.

3) When a force greater than the above force is given parallel to the same desk ,but the desk does not move. The reason for this is,
   i) The direction of that force is incorrect.

   ii) The force is unbalanced.

   iii) The frictional force is less than the force given by us.

   iv) The frictional force is automatically adjusted to balance the force given by us.

4) To balance the force exerted parallel to a surface, the frictional force can be increased,
   i) to any value ii) up to a certain limit only.

5) When the above desk is moving,
   i) Frictional force has exceeded the automatically adjustable limit.
   ii) Force given by us is less than the frictional force.
   iii) Frictional force is zero.
   iv) The frictional force and the force applied by us are the same in value.

6) Frictional force always acts,
   i) closer ii)internally. ii) between the external surfaces. iv) between the contact surfaces.

7) Examples for incidents where frictional force acts are,
   i) when an object is at rest. ii) only on moving subjects. iii) only when an object is moving at a uniform velocity. iv) when there is a relative motion or when there is a tendency for motion.

8) The frictional force exerted when an object has a tendency to move is called,
   i)Static frictional force ii) Limiting frictional force iii) Dynamic frictional force

9) Frictional force which acts when an object is moving, is called;
i) Dynamic frictional force ii)Limiting frictional force iii)Static frictional force

10)The maximum frictional force act between two objects when they are in contact with eachother is,
i)Dynamic frictional force ii)Static frictional force iii)Limiting frictional force

11)Dynamic Frictional force is,
i) equal to the limiting frictional force.
ii)higher than the limiting frictional force.
iii)a bit less than the limiting frictional force.
iv)a bit higher than the limiting frictional force.

Study the activity no. 2 in page no. 100 of your textbook, and answer the question 12 and 13.

12) When the roughness of sand paper is gradually increased ,the limiting frictional force,
i) remains the same. ii) gradually increases. iii)gradually decreases iv)uniformly decreases.

13) This experiment explains that frictional force,
i)depends on the volume of contact surfaces. ii) depends on the nature of contact surfaces.
iii) depends on the area of contact surfaces. Iv) does not depend on properties of contact surfaces.

Study the activity no. 3 in page no. 101 of your textbook to answer the questions 14 and 15.

14) The surfaces of log used in this practical are,
i) Differ from area of surfaces only. ii)differ from nature of surfaces only. iii)not differ from area of surfaces. iv) the colour of surfaces of the log should be differ.

15) According to the results of the above practical limiting frictional force,
i)does not depend on the area of contact surfaces. ii) depend on the area of contact surfaces.
iii) does not depend on the nature of contact surfaces. iv) depend on the nature of contact surfaces.

Study the activity no. 4 in page no. 102 to answer the questions 16 and 17.

16) When the number of logs increases,
i)weight of the object increases. ii)weight of the object directed towards the downward.
iii)equal force is exerted upward direction by the surface of the desk.
iv)all the above mentioned things happen.

17) The upward force on the log exerted by the surface of the desk is called,
i) perpendicular reaction ii)frictional force iii)weight iv) mass

18) When the perpendicular reaction between two surfaces increases, the limiting frictional force,
i) decreases ii) increases iii) does not change iv) can not say.

19) Due to the frictional force acts when machines are operated,
i)has to work against that forces also. ii) consume more energy and some energy is wasted.
iii)temperature increases iv) all the above mentioned things happen.

20) A method that is used to minimize the roughness of the contact surfaces is,
i)applying powder on the carom board. ii) building stairs rough.
iii) cut grooves on tires . iv)cut groves on the external surface of shoes.