



SCIENCE  
CH:12- FRICTION

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class: VIII Sec: \_\_\_\_

## I Multiple Choice Questions:

- To sharpen the blade of a knife by rubbing it against a surface, which of the following will be most suitable?  
(a) stone (c) wooden block  
(b) plastic block (d) glass block
- A toy car released with the same initial speed will travel farthest on  
(a) muddy surface (c) cemented surface  
(b) polished marble surface (d) brick surface
- If we apply oil on door hinges, the friction will  
(a) increase (c) disappear altogether  
(b) decrease (d) will remain unchanged
- A boy rolls a rubber ball on a wooden surface. The ball travels a short distance before coming to rest. To make the same ball travel longer distance before coming to rest, he may  
(a) spread a carpet on the wooden surface.  
(b) cover the ball with a piece of cloth.  
(c) sprinkle talcum powder on the wooden surface.  
(d) sprinkle sand on the wooden surface.

## II Answer the following:

- Two boys are riding their bicycles on the same concrete road. One has new tyres on his bicycle while the other has tyres that are old and used. Which of them is more likely to skid while moving through a patch of the road which has lubricating oil spilled over it? Why?
- Imagine that an object is falling through a long straight glass tube held vertical; air has been removed completely from the tube. The object does not touch the walls of the tube. Will the object experience any force of friction?
- Is there a force of friction between the wheels of a moving train and iron rails? If yes, name the type of friction. If an air cushion can be introduced between the wheel and the rail, what effect will it have on the friction?
- Cartilage is present in the joints of our body, which helps in their smooth movement. With advancing age, this cartilage wears off. How would this affect the movement of joints?
- The handle of a cricket bat or a badminton racquet is usually rough. Explain the reason.
- A marble is allowed to roll down an inclined plane from a fixed height. At the foot of the inclined plane, it moves on a horizontal surface (a) covered with silk cloth (b) covered with a layer of sand and (c) covered with a glass sheet. On which surface will the marble move the shortest distance. Give reason for your answer.