

CHAPTER-12 'FRICTION'

COMPETENCY BASED QUESTION:

1) On Sunday Razak invited everyone to play carom in his house. While playing, striker was not moving properly from one place to another. Everybody thought it is their bad luck. But Razia, one of the player, quick got up and sprinkled some talcum power on the board.

- Why Razia sprinkled some talcum power?
- Can you give some other example which serves the same purpose?
- What value of Razia is shown here?

2) Ram and Shyam while returning from school saw a labour pushing hard to move a heavy box. Ram immediately ran to him and started helping him in pushing the box whereas Shyam brought two iron bars and asked the labour to put them below the box and then to push the box.

- What are the factors that affect friction?
- What will help the labour more Ram or Shyam? How?
- How iron rod helped them to move the heavy box?
- What else can be used to move easily the box?

3) Imagine that friction suddenly vanishes. How would life be affected? List ten such situations.

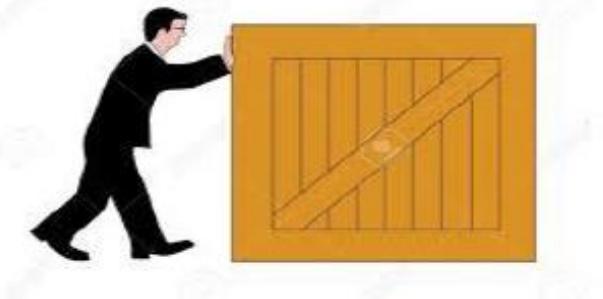
4) Two boys are riding their bicycles on the same concrete road. One has new tyres on his bicycles while the other has tyres that are old and used. Which of them is more likely to slip while moving through a patch of the road which has lubricating oil spilled over it?

5) 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?

6) Is there a force of friction between the wheels of a moving train and the 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?

7) In the figure, a boy is pushing the box from right to left



The force of friction will act on the box

- (a) From right to left
- (b) From left to right
- (c) Vertically downwards
- (d) Vertically upwards