

MULTIPLE CHOICE QUESTIONS

1. Whenever the surfaces in contact tend to move or move with respect to each other, the force of friction comes into play
- (a) only if the objects are solid.
 - (b) only if one of the two objects is liquid.
 - (c) only if one of the two objects is gaseous.
 - (d) irrespective of whether the objects are solid, liquid or gaseous.
- 2.



Fig. 12.1

- In Fig.12.1, a boy is shown pushing the box from right to left. The force of friction will act on the box
- (a) from right to left (\leftarrow)
 - (b) from left to right (\rightarrow)
 - (c) vertically downwards (\downarrow)
 - (d) vertically upwards (\uparrow)
3. To sharpen the blade of a knife by rubbing it against a surface, which of the following will be most suitable?
- (a) stone
 - (b) plastic block
 - (c) wooden block
 - (d) glass block
4. A toy car released with the same initial speed will travel farthest on
- (a) muddy surface
 - (b) polished marble surface
 - (c) cemented surface
 - (d) brick surface

VERY SHORT ANSWER QUESTIONS

9. Two blocks of iron of different masses are kept on a cemented floor as shown in Fig.12.2. Which one of them would require a larger force to move it from the rest position?



Fig. 12.2

10. Will force of friction come into play when a rain drop rolls down a glass window pane?
11. 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?

SHORT ANSWER QUESTIONS

14. You might have noticed that when used for a long time, slippers with rubber soles become slippery. Explain the reason.
15. Is there a force of friction between the wheels of a moving train

LONG ANSWER QUESTIONS

22. When the cutting edge of a knife is put against a fast rotating stone to sharpen it, sparks are seen to fly. Explain the reason.