

**I. Choose the correct option.**

1. Question. Friction is a

- (a) non-contact force
- (b) contact force
- (c) magnetic force
- (d) electrostatic force

Answer (b) contact force

2. Question. Friction always

- (a) opposes the motion
- (b) helps the motion
- (c) both (a) and (b)
- (d) none of these

Answer (a) opposes the motion

3. Question. 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

Answer (a) Stone

4. Question. 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

Answer (b) polished marble surface

5. Question. Force of friction depends on

- (a) roughness of surface
- (b) smoothness of surface
- (c) inclination of surface
- (d) all of these

Answer (d) all of these

6. Question. Smooth surface has

- (a) less friction
- (b) more friction
- (c) sometimes less and sometimes more
- (d) all of these

Answer: (a) less friction

7. Question. Spring balance is a device used for measuring the \_\_\_\_\_ acting on an object.

- (a) mass
- (b) pressure
- (c) force
- (d) None of the above

Answer (c) force

8. Question. A matchstick struck on a matchbox catches fire easily because

- (a) Friction may cause fire
- (b) Of chemical reaction
- (c) Force heated the match stick
- (d) None of the above

Answer: (a) Friction may cause fire

**II. Fill in the blanks with suitable word/s.**

1. Friction depends on the \_\_\_\_\_ of substances in contact.

Answer: nature

2. Static friction comes into play when we try to move an object at \_\_\_\_\_.

Answer: rest

3. The sole of shoes and the tyres of vehicles are treaded to \_\_\_\_\_ friction.

Answer: increase

4. Friction is sometimes \_\_\_\_\_ .

Answer: undesirable

**III. State whether the given statements are true or false.**

1. Friction is always useful to us.

Answer: False

2. Friction is less for smooth surfaces.

Answer: True

3. A soapy floor is slippery due to increased friction.

Answer: False

4. Friction always works in opposite direction to the relative motion.

Answer: True

5. Friction is dependent on area of contact.

Answer: False

6. Friction decreases with increase in the smoothness of the surface.

Answer: True

7. It is easier to move a heavy object than a light object.

Answer: False

8. Friction is independent of the nature of surfaces in contact.

Answer: False

9. A spring balance measures force.

Answer: True