



TEST PAPER: PHYSICS

Time: 45 Minutes

Class: 8th C.B.S.E.

Max. Marks: 30 Marks

Date: 27th June, 2018

Marking Scheme: Three questions carry 10 marks each. Each question has 3 subparts each. Subparts A and B carry 3 marks each and subpart C carries 4 marks.

Question 1:

A. Choose the correct option:

- i) A toy car released with the same initial speed will travel farthest on
a) stone b) plastic block c) wooden block d) glass block
- ii) If we apply oil on door hinges, the friction will
a) increase b) decrease
c) disappear altogether d) will remain unchanged
- iii) A boy pushes the heavy box from right to left. Force of friction will act on the box
a) from right to left b) from left to right
c) vertically downwards d) vertically upwards
- iv) Which of the following statements is incorrect:
a) Friction acts on ball rolling along the ground
b) Friction acts on boat moving on water
c) Friction acts on bicycle moving on a smooth road
d) Friction does not on ball moving through air
- v) Friction is an
a) evil b) foe
c) friend d) all of the above
- vi) Fluid are
a) Gases b) liquids
c) gases and liquids both d) None of these

B. Answer the Following:

- i) While playing tug of war Preeti felt that the rope was slipping through her hands. Suggest a way out for her to prevent this. Support your answer.
- ii) What would have happened if there were no force of friction? Imagine and describe in your own words.

C. Answer the Following in brief:

- i) Define different types of friction with suitable examples.
- ii) On what factors does fluid friction depends?

Question 2:

A. Fill in the blanks:

- i) Friction depends on _____ of surfaces
- ii) Sliding friction is _____ than static friction.
- iii) _____ friction comes into play when we try to move an object at rest.
- iv) Frictional force exerted by fluids is also called _____
- v) When one body rolls over the surface of another body the resistance to its motion is called _____
- vi) Friction produces _____ causing wastage of energy

B. Answer the following:

- i) What is the cause of friction?
- ii) Why sliding friction is less than the static friction.

C. Give reasons:

- a. Soles of shoes and tyres are treaded
- b. Powder is sprinkled on carrom board

Question 3:

A. Answer the following:

- i) A father and son pushed their car to bring it to the side of the road as it had stalled in the middle of the road. They experienced that although they had to push with all their might initially to move the car, the push required to keep the car rolling was smaller, once the car started rolling. Explain.
- ii) Which of the following surfaces will offer the least friction?
 - i. plywood
 - b) plastic
 - c) ice

D. Mobil oil is used in scooters and bikes for which purpose?

- a) as fuel
- b) for reducing friction
- c) for increasing friction

B. Answer the following:

- i) What is the way to reduce fluid friction?
- ii) In which direction frictional force acts on a moving object.
- iii) Four children were asked to arrange forces due to rolling, static and sliding frictions in a decreasing order. Their arrangements are given below. Choose the correct arrangement.
(a) Rolling, static, sliding (b) Rolling, sliding, static (c) Static, sliding, rolling (d) Sliding, static, rolling

C. Answer the following:

- i) While travelling on a rickshaw, you might have experienced that if the seat cover is very smooth, you tend to slip when brakes are applied suddenly. Explain
- ii) It is easier to open a bottle cap by gripping it with a towel. Why?