

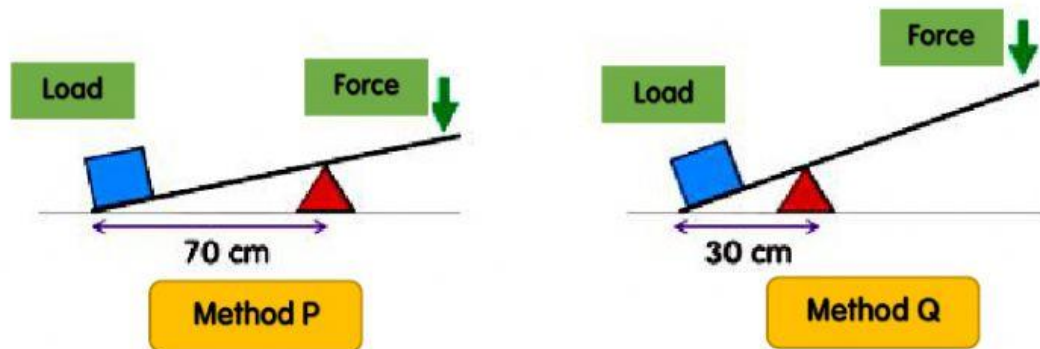


NAME : \_\_\_\_\_ CLASS : \_\_\_\_\_

## UNIT 10 : MACHINES

### LEVER - Relationship Between Load, Fulcrum and Force

- I. The diagram below shows an investigation carried out by a student. He tried to move the load using levers with different fulcrum positions.



- a) State the variables in this investigation.

- i) Manipulated variable : \_\_\_\_\_
- ii) Response variable : \_\_\_\_\_
- iii) Constant variable : \_\_\_\_\_

- b) Which method allows an object to be lifted with a small amount of force?

\_\_\_\_\_

- c) State your reasons in (b)

The \_\_\_\_\_ method allows the object to be lifted using \_\_\_\_\_ because the \_\_\_\_\_ from the fulcrum is closer than the \_\_\_\_\_ method.

- d) State the relationship between the distance of the load from the fulcrum and the force needed to lift the load.

The \_\_\_\_\_ the load from the fulcrum, the \_\_\_\_\_ the force that is needed to lift the load.