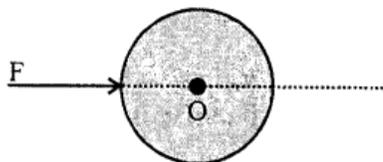


Board – ICSE

Class – 8<sup>th</sup>

Topic – Force and Pressure

1. State two factors on which affect moment of force
2. In Fig. a force  $F$  is applied in a direction passing through the pivoted point  $O$  of the body. Will the body rotate? Give reason to support your answer.



3. What do you mean by the clockwise and anti-clockwise moment of force?
4. Name two factors on which the pressure on a surface depends
5. A gum bottle rests on its base. If it is placed upside down, how does the
  - (i) Thrust
  - (ii) Pressure change?
6. Find the moment of force of 20 N about an axis of rotation at distance 0.5 m from the force.
7. A wheel of diameter 2 in can be rotated about an axis passing through its centre by a moment of force equal to 2.0 N m. What minimum force must be applied on its rim?
8. Calculate the pressure in pascal exerted by a force of 300 N acting normally on an area of 30 cm<sup>2</sup>.
9. A boy weighing 60 kgf stands on platform of dimensions 2.5 cm × 0.5 cm. What pressure in pascal does he exert?
10. Give reasons for the following :
  - (a) A balloon collapses when air is removed from it.
  - (b) Water does not run out of a dropper unless its rubber bulb is pressed.
11. Describe a simple experiment to illustrate that air exerts pressure.
12. The base of a container measures 15 cm × 20 cm. It is placed on a table top. If the weight of the container is 60 N, what is the pressure exerted by the container on the table top ?
13. A normal force of 200 N acts on an area of 0.02 m<sup>2</sup>. Find the pressure in pascal.
14. State two effects of a force when applied on a body.
15. State the effect of force  $F$  in each of the following diagram

