HOME WORK

1. Find the moment of force of 20N about an axis of rotation at a distance of 40 cm from the force.

Ans- Moment of force = Force x Perpendicular distance

$= 20\,N \times 40\,cm = 800$

$40\,cm = 0.40\,m$

$= 20\,N \times 0.40\,m = 8.00\,N.m$

2. The moment of force of 20N about a point is 2 Nm. Find the perpendicular distance of force from that point.

Ans Moment of force = 2 Nm

Force applied = 20

Moment of force = Force x distance

$2 = 20 \times x$

$\therefore x = \text{distance} = \frac{2}{20}\,m = \frac{1}{10}\,m$

$\frac{1}{10} \times 100 = 10\,cm$

3. Define force. Write its S.I Unit.

Ans A force is a cause (pull / push) which tends to result in movement or change in size or shape of the body. It is denoted by F. It is a vector quantity.

The S.I Unit of force is Newton.

4) Define the term moment of force.

Ans - The moment of a force is equal to the product of the magnitude of the force & the perpendicular distance of the force from the pivoted point.