



**SNS COLLEGE OF TECHNOLOGY**



# **16ME207- STRENGTH OF MATERIALS**

**UNIT II - BEAMS – SHEAR FORCE, BENDING MOMENT AND THEORY OF BENDING**

**Cantilever beams**

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## Cantilever beams

***Cantilever beam means a rigid beam or bar that is fixed to a support usually a vertical structure or wall and the beam's other end is free. The beam's fixed end has a reaction force and moment created by the load acting at the free end. The intention of cantilever beam is to create a bending effect to certain limit.***





## cantilever beam example

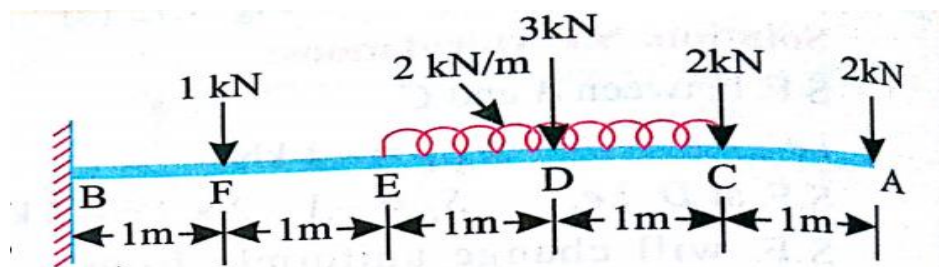


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## Problem

1. Draw the S.F. and B.M. diagrams for cantilever loaded as shown in Fig.





## Problem

2. Draw the S.F. and B.M. diagrams for cantilever loaded as shown in Fig.

