



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.



Unit - I

PROPERTIES OF MATTER

Part B

1. Describe with necessary theory, the method to determine the Young's modulus of the material of a rectangular bar by uniform bending. (or) Describe an experiment to determine the Young's modulus of a beam using bending of beams? (DEC 1995, JUNE 1989)
2. What is cantilever? Obtain expression for the depression at the free end of a cantilever when the other end is rigidly fixed (assume the weight of the cantilever is negligible).(MAY/JUNE 2014)
3. Derive an expression for the internal bending moment of a beam in terms of radius of curvature? (NOV 1998)
4. A circular and a square cantilever are made of same material and have equal area of cross-section and length. Find the ratio of their depressions for a given load. (DEC1998)
5. Derive an expression for depression at the free end of a cantilever, due to load.
Describe an experiment to determine the Young's modulus of the cantilever material using this expression. (NOV 2002).
6. Explain I Shaped girder and its application.
7. Describe with necessary theory, the method to determine the Young's modulus of the material of a rectangular bar by non uniform bending. (or) Describe an experiment to determine the Young's modulus of a beam using bending of beams?