Department of Civil Engineering
Program: B.Sc. in Civil Engineering
Course Title: Engineering Mechanics
Course Code: CE 202
Spring 2021 Semester Case-Study

Answer all the questions   Total Marks: 20
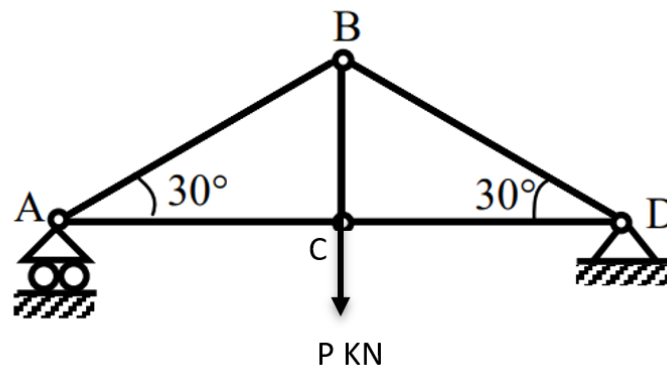
1.0 Introduction

2.0 Objectives

3.0 Briefly illustrate the Centre of Gravity.

4.0 "The area of the square whose side is the hypotenuse (the side opposite the right angle) is equal to the sum of the areas of the squares on the other two sides". Derive the statement with proper illustrations.

5.0 Data table (Necessary information given below with sketch)

Find the forces in all the members of the truss given below. The truss is supported by a roller and hinges only. Use (P=R/25) Kip at C. (where R= last two digits of your roll number in Kip). The distance AC=10+R/5 in ft and CD=10+R/5 in ft.

6.0 Result and discussion