

Daffodil International University

B. Sc. in Civil Engineering

Mid Term Examination, Spring - 2025

Course Code: CE 211

Course Title: Mechanics of Solids I

Section: BN1, BN2

Level-Term: 2-1

Teacher's Initial: KOR

Full Marks: 25

Date: March 13, 2025

Time: 1.5 Hours

Note: Answer All of the questions. Assume reasonable values for any missing data.

1. (a) Calculate support reactions of the following beam. (Figure -1) [CO1, C3] [5.0]

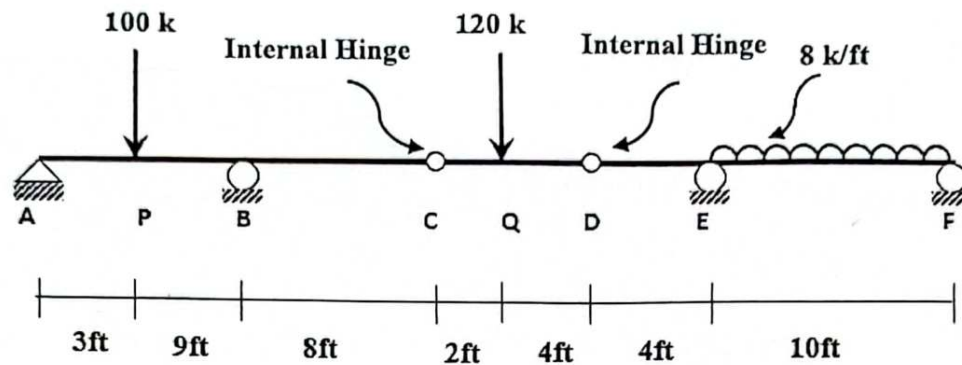


Figure -1

- (b) Calculate support reactions of the following beam. (Figure -2) [CO1, C3] [4.0]

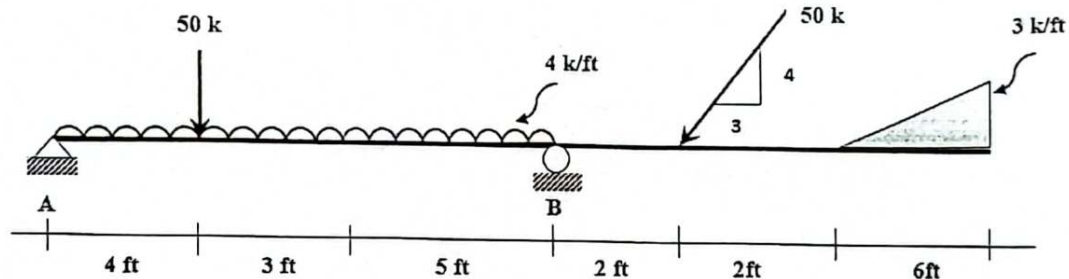


Figure -2

2. Draw the Axial Force Diagram (AFD), Shear Force Diagram (SFD) & Bending Moment Diagram (BMD) for the following beam. (Figure -3) [CO1, C3] [10.0]

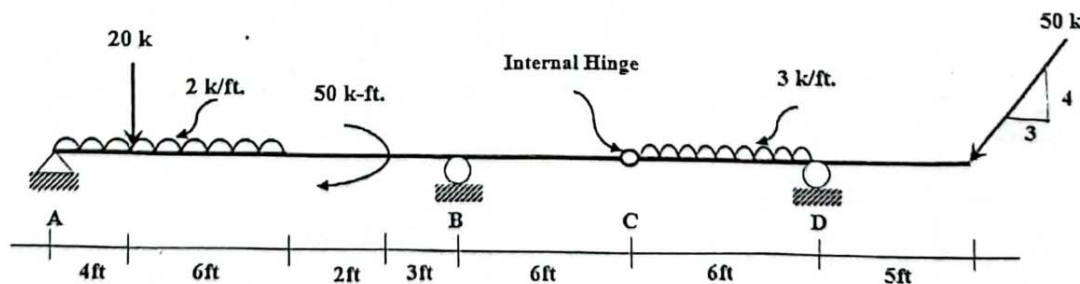


Figure -3

$$R_B = 117.99$$

3. Draw the Shear Force Diagram (SFD) & Bending Moment Diagram (BMD) for the following beam. (Figure -4) [CO1, C3] [6.0]

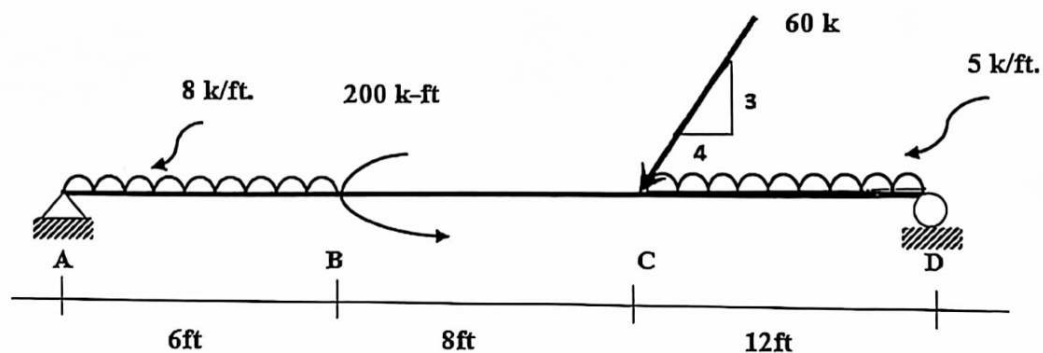


Figure -4