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# 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]

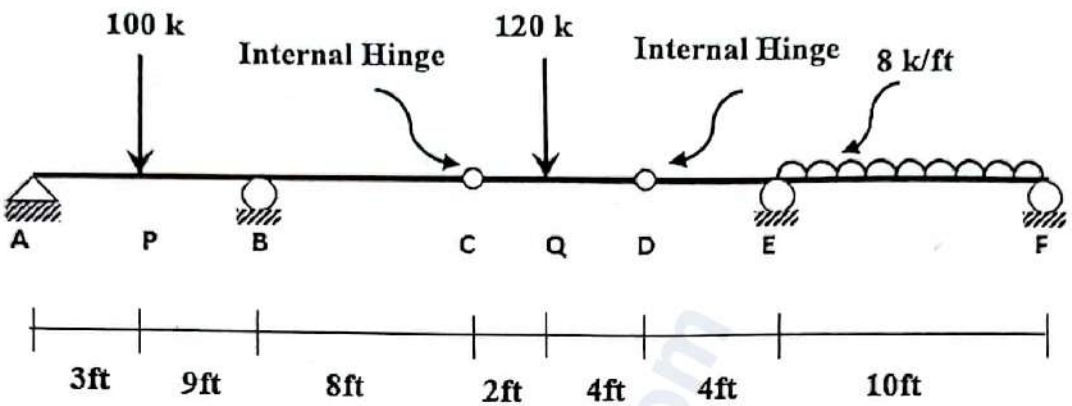



*Figure -1*

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

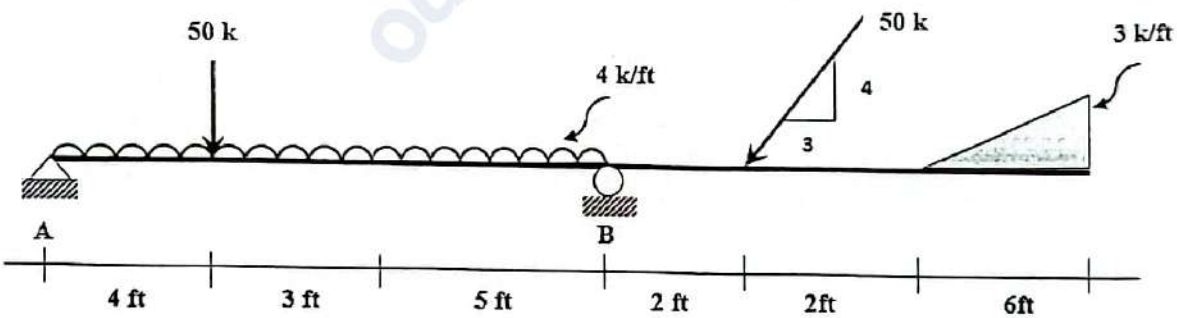



*Figure -2*

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]

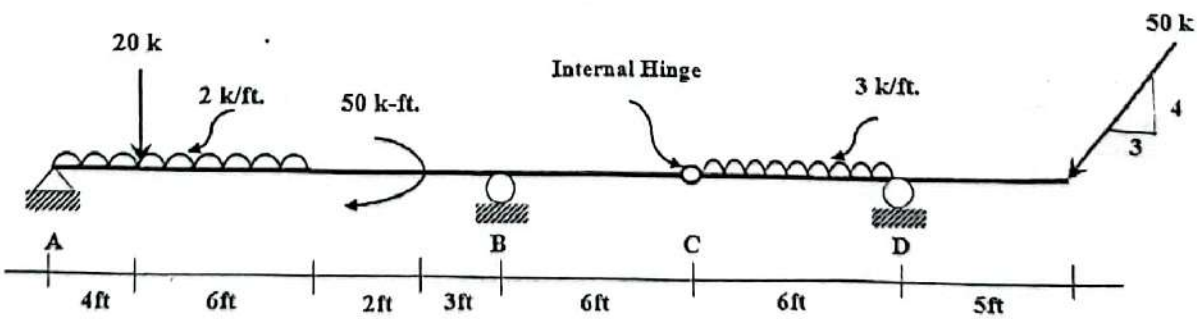



*Figure -3*

$R_B = 117.33$

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

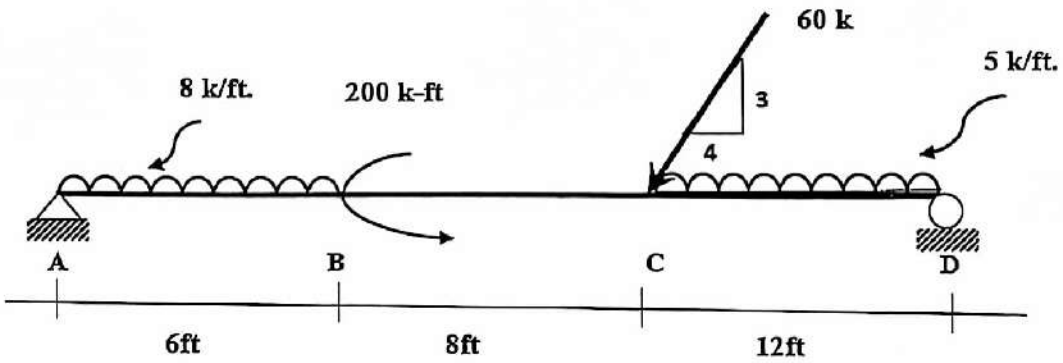



*Figure -4*

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