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]

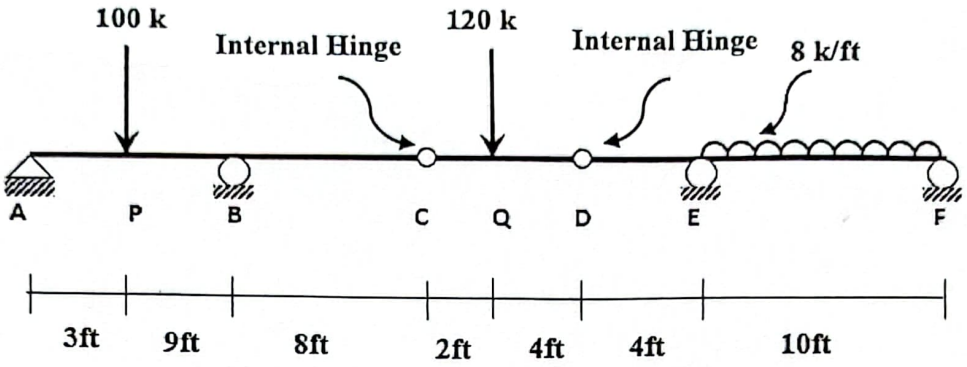

Figure -1

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

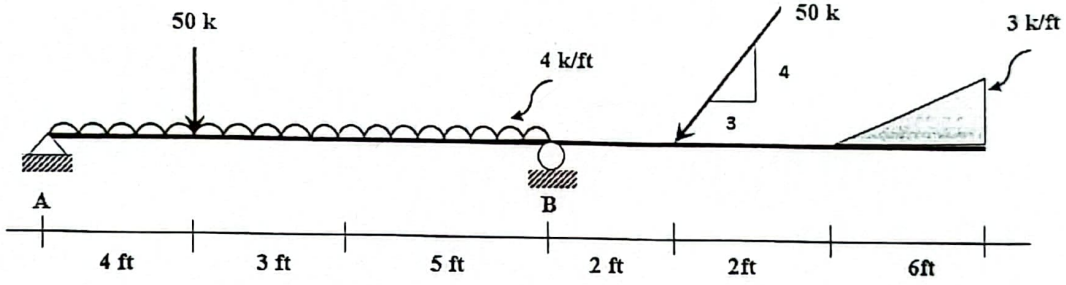

Figure -2

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]

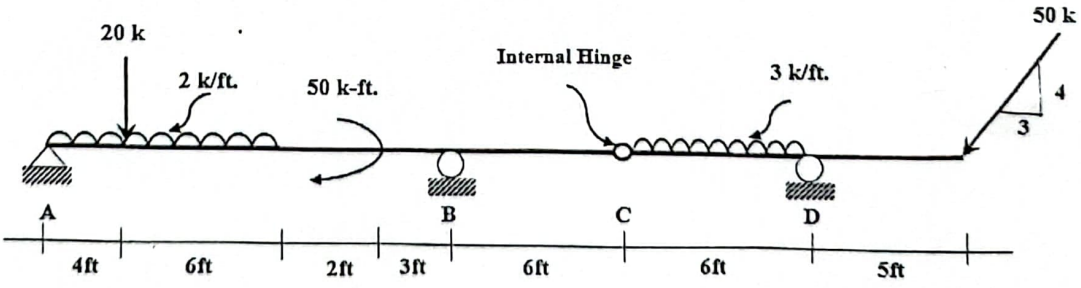

Figure -3

$R_B = 117.33$

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

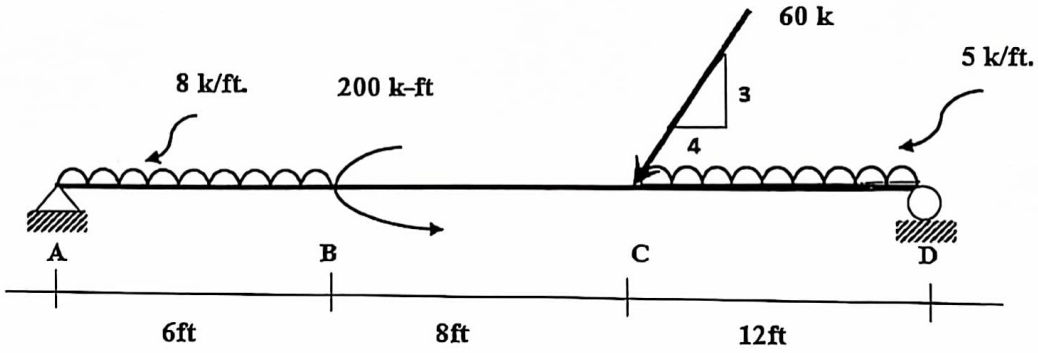

Figure -4