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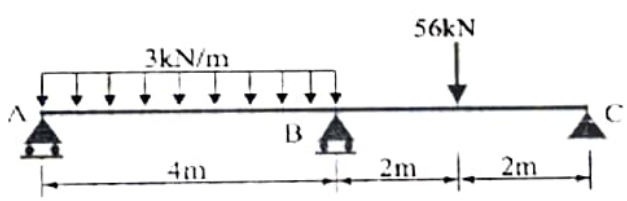
School: School of Engineering and Technology
Program/s: B.Tech Civil Engineering
Year: 3rd **Semester:** 5th
Examination: End Semester Examination
Examination year: November - 2023

Course Code: CE321 **Course Name:** Theory of Structures II
Date: 23/11/2023
Time: 01:00 p.m. to 03:00 p.m.
Total Marks: 40
Total Pages: 01

Instructions:

→ *Write each answer on a new page.*
→ *Use of a calculator is permitted*
→ *Assume suitable data if required, and mention the same*

Q. No.	Details	Marks	COs'	BTL"
Q.1	Draw bending moment diagram for following beam using moment distribution method	15	CO3	BT4,BT5
Q.2	Answer the following	10	CO2,3,4	BT3,BT4
	a. State importance of influence line diagram for analyzing structural members.			
	b. Draw Influence line diagrams for reaction, shear force and bending moment for simply supported beam subjected to single point load.			
Q.3	A parabolic cable of span 120 m and dip of 9 m carries load of 16 kN/m over span. Find maximum tension in cable and inclination of cable at support. The anchor cable is at 35° with horizontal. Find forces transmitted to supporting tower if cable passes over smooth pulley on top of the pier. The height of tower is 16 m.	10	CO3	BT3,BT6
Q.4	State importance of flexural rigidity in structural behavior and response under loading.	05	CO1,2	BT1,BT5

************End of Question Paper************