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# PRESIDENCY UNIVERSITY

## BENGALURU

### Mid - Term Examinations – October 2025

**Date:** 07-10-2025

**Time:** 09.30am to 11.00am

<b>School:</b> SOE	<b>Program:</b> B. Tech (Civil Engineering)	
<b>Course Code :</b> CIV3002	<b>Course Name:</b> Analysis of Indeterminate Structures	
<b>Semester:</b> V	<b>Max Marks:</b> 50	<b>Weightage:</b> 25%

<b>CO - Levels</b>	<b>CO1</b>	<b>CO2</b>	<b>CO3</b>	<b>CO4</b>	<b>CO5</b>
<b>Marks</b>	<b>30</b>	<b>20</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

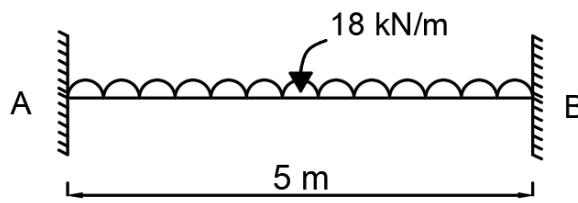
### Part A

Answer ALL the Questions. Each question carries 2 marks.

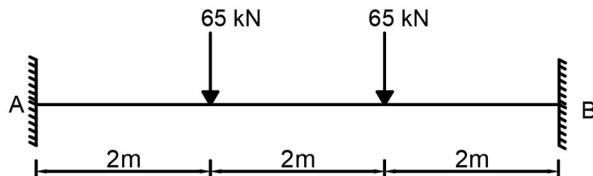
**5Q x 2M=10M**

1	Determine the fixed end moments for the beam loaded as shown in figure.	2 Marks	L3	CO1
2	Determine the fixed end moments for the beam loaded as shown in figure.	2 Marks	L3	CO1
3	Determine the fixed end moments for the beam loaded as shown	2 Marks	L3	CO1

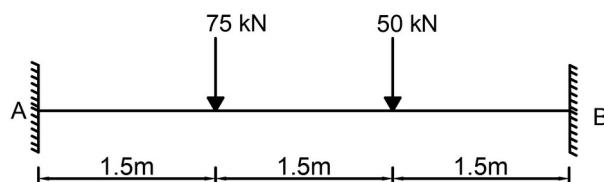
in figure.



4 Determine the fixed end moments for the beam loaded as shown in figure.



5 Determine the fixed end moments for the beam loaded as shown in figure.

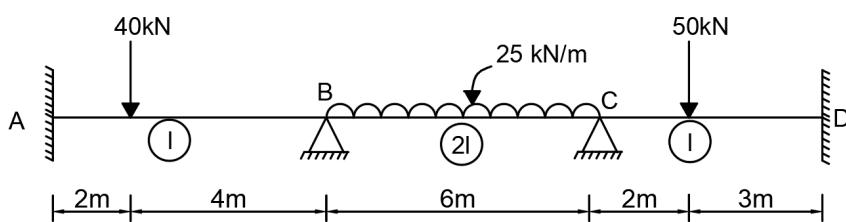


## Part B

Answer the Questions.

Total Marks 40M

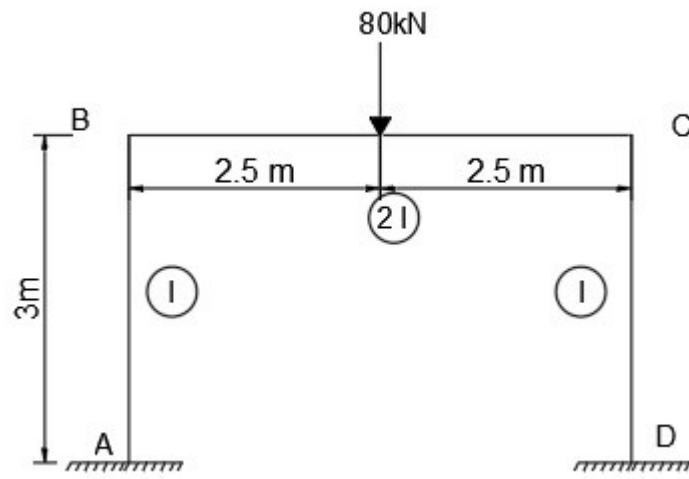
6. Analyze the continuous beam loaded as shown in figure by slope deflection method and draw the BMD and SFD. Also sketch the deflected shape of the structure.



Or

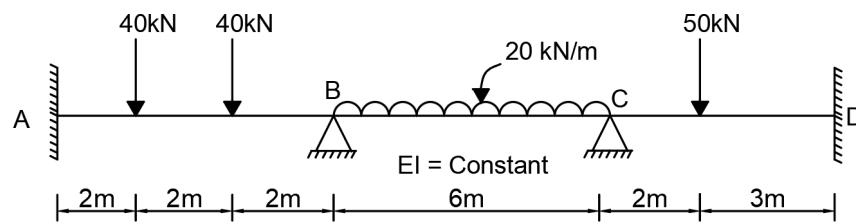
7. Analyze the 2D portal frame loaded as shown in figure by slope deflection method and draw the BMD and SFD. Also sketch the deflected shape of the structure.

20 Marks L3 CO 1



8.

**Analyze the continuous beam loaded as shown in figure by moment distribution method and draw the BMD and SFD. Also sketch the deflected shape of the structure.**



20 Marks

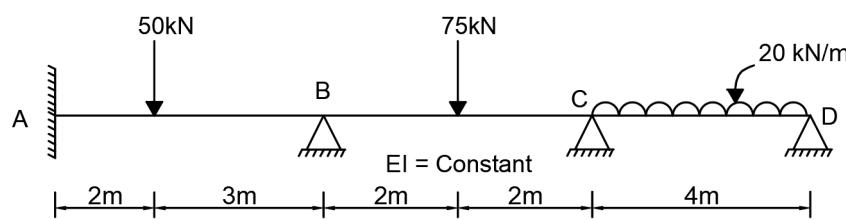
L3

CO 2

Or

9.

**Analyze the continuous beam loaded as shown in figure by moment distribution method and draw the BMD and SFD. Also sketch the deflected shape of the structure.**



20 Marks

L3

CO 2