Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – December 2025

Date: 08-12- 2025 **Time:** 01:00pm – 04:00pm

School: SOE	**Program:** Civil Engineering	
Course Code: CIV3002	**Course Name:** Analysis of Indeterminate Structures	
Semester: V	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Marks	**20**	**20**	**20**	**20**	**20**

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 2marks. **10Q x 2M=20M**

1.	Determine the fixed end moments for the beam loaded as shown in figure.	2 Marks	L2	CO1
2.	Determine the fixed end moments for the beam loaded as shown in figure.	2 Marks	L2	CO1
3.	Determine the fixed end moments for the beam loaded as shown in figure.	2 Marks	L2	CO1

4.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1
5.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1
6.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1
7.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1
8.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1
9.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1

10.	Determine the fixed end moments for the beam loaded as shown in figure. 	2 Marks	L2	CO1

Part B

Answer the Questions. **Total Marks 80M**

11.	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. 	20 Marks	L3	CO2
	Or			
12.	Analyze the 2D portal frame loaded as shown in figure by slope deflection method and draw the BMD. Also sketch the deflected shape of the structure. 	20 Marks	L3	CO2

13.	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	CO3
	Or			

14.	Analyze the 2D portal frame loaded as shown in figure by moment distribution method and draw the BMD. Also sketch the deflected shape of the structure.	20 Marks	L3	CO3

15.	Analyze the continuous beam loaded as shown in figure by Kani's method and draw the BMD and SFD. Also sketch the deflected shape of the structure.	20 Marks	L3	CO4
	Or			
16.	Analyze the 2D portal frame loaded as shown in figure by Kani's method and draw the BMD. Also sketch the deflected shape of the structure.	20 Marks	L3	CO4

17.	Analyze the continuous beam loaded as shown in figure by Flexibility Matrix method and draw the BMD and SFD. Also sketch the deflected shape of the structure.	20 Marks	L4	CO5

	Or			
18.	Analyze the continuous beam loaded as shown in figure by Stiffness Matrix method and draw the BMD and SFD. Also sketch the deflected shape of the structure. 	20 Marks	L4	CO5