JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

B.Tech-Vth Semester (CE)

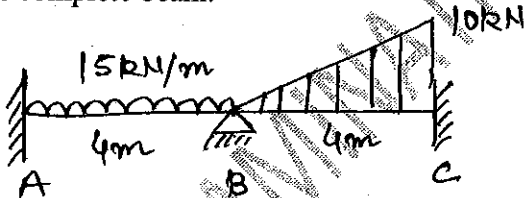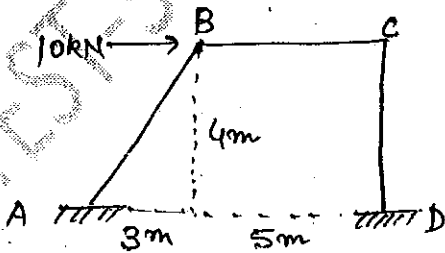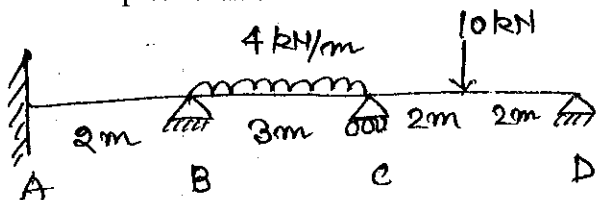COURSE CODE (CREDITS): 18B11CE513(3)   MAX. MARKS: 35
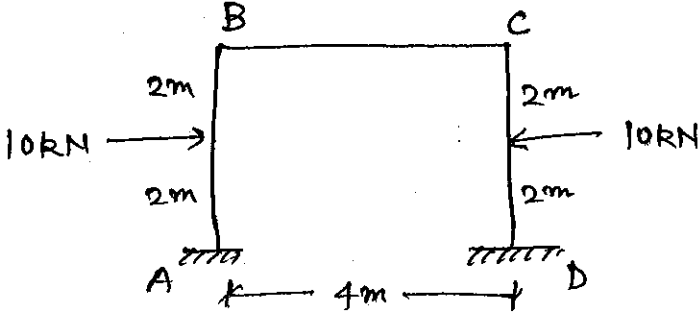
COURSE NAME: Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam   MAX. TIME: 2 Hours

Note: *(a) All questions are compulsory. Calculator is allowed.*
(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems.

Q.No	Question	CO	Marks
Q1	1. Discuss the following terms: (i) Stiffness of a member, (ii) Distribution Factor, (iii) Carry Over Moments 2. Derive different sway displacements in inclined frame members, in term of horizontal displacements.	CO-3	(3+2 = 5)
Q2	Solve the given beam by using Slope Deflection Equations. Assume EI is constant for the complete beam. 	CO-5	8
Q3	Solve the given frame by using Slope Deflection Equations. Assume E = 200N/mm^2 and I = 600mm^4 for the beam. 	CO-4	10
Q4	Solve the given beam by using Moment Distribution Methods. Assume EI is constant for the complete beam. 	CO-5	5

Q5	Solve the given frame by using Moment Distribution Methods. Assume EI is constant for the complete beam.	CO-5	7