

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATIONS- 2025

B.Tech-V Semester (CE)

COURSE CODE (CREDITS): 18B11CE513 (3)

MAX. MARKS: 25

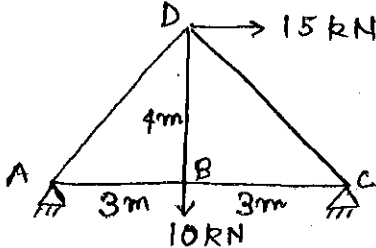
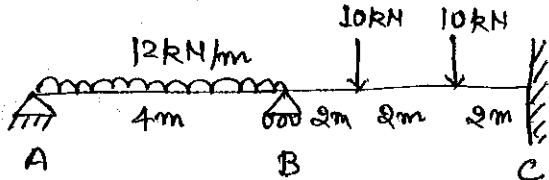
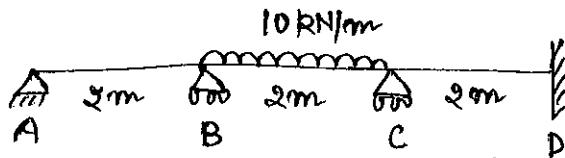
COURSE NAME: Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

MAX. TIME: 1 Hour 30 Min

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	For the given truss, find the support reactions and forces in all the truss members. Assume AE is constant. 	CO-2	8
Q2	For the given beam draw the bending moment diagram and reinforcement pattern. Assume EI is constant for the beam. 	CO-3	7
Q3	For the given beam draw the bending moment diagram and deflection of beam. Support B settles by 10mm. Assume $E = 200\text{N/mm}^2$ and $I = 600\text{mm}^4$ for the beam. 	CO-3	7
Q4	Discuss the reason for settlement in the building and remedy for the same.	CO-3	3