

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2024

B.Tech-V Semester (CE)

COURSE CODE (CREDITS): 18B11CE513

MAX. MARKS: 25

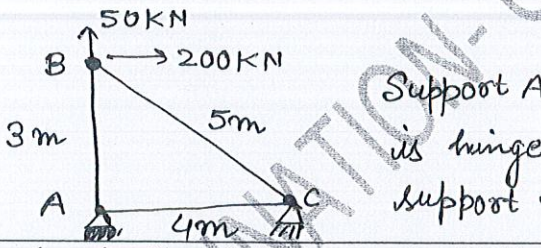
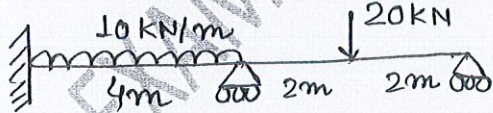
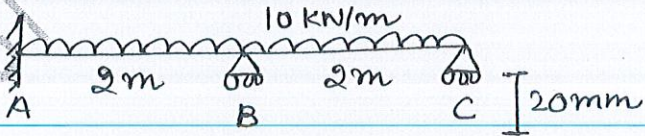
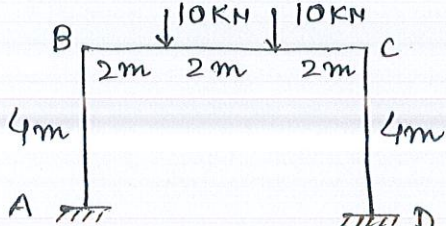
COURSE NAME: Structure Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

MAX. TIME: 1 Hour 30 Minutes

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

Q.No	Question	CO	Marks
Q1	<p>Analyse the given truss by using force method. AE for all the members are same.</p>  <p>Support A is hinge support.</p>	CO-2	7
Q2	<p>Solve the given beam by using Slope deflection equation (SDE) and the reinforcement pattern in the beam. EI for all the spans are same.</p> 	CO-3	6
Q.3	<p>Analyse the given beam by using SDE and draw the bending pattern of the beam. Support C settles by 20mm. $E=200\text{GPa}$, $I=200\times 10^6\text{mm}^4$</p> 	CO-3	6
Q.4.	<p>Evaluate the moments at all joints and supports of the given frame by using SDE. EI for all the members are same.</p> 	CO-4	6