

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2025

B.Tech-VI Semester (CE)

COURSE CODE (CREDITS): 18B1WCE631 (3)

MAX. MARKS: 25

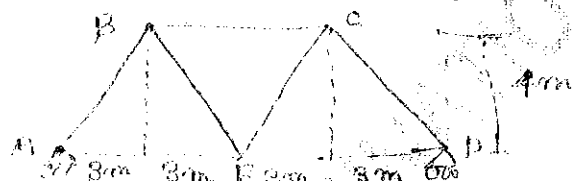
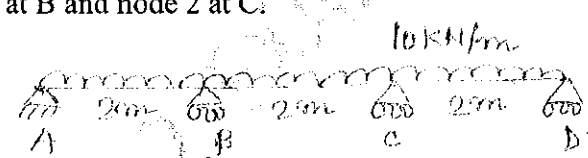
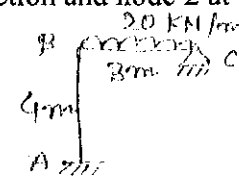
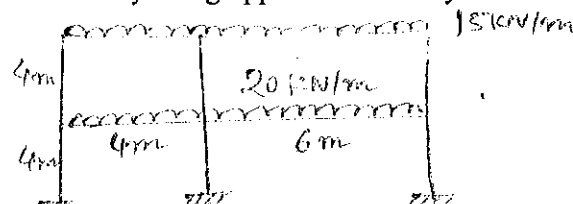
COURSE NAME: Advanced Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

MAX. TIME: 1 Hour 30 Min

**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	(i) Discuss the significance of approximate analysis of frames. (ii) Discuss the limitation of Flexibility Matrix Method. (iii) Differentiate between flexibility and Stiffness.	CO-2	3
Q2	Draw the ILD for member BC and BE of the given truss. 	CO3	6
Q3	Solve the given beam by using flexibility matrix method. Assume node 1 at B and node 2 at C. 	CO-2	5
Q4.	Find all element of flexibility matrix the given frame. Assume node 1 at C along x direction and node 2 at C along Y direction. 	CO-2	6
Q5	Solve the given frame by using approximate analysis of frames. 	CO-3	5