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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS- 2026

B.Tech-VI Semester (CE)

COURSE CODE (CREDITS): 18B1WCE631 (3)

MAX MARKS: 35

COURSE NAME: Advanced Structural Analysis

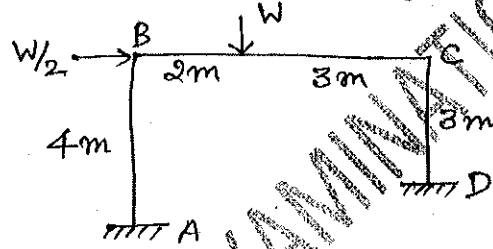
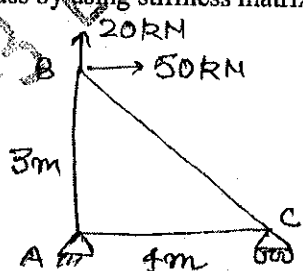
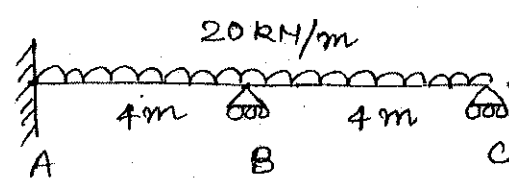
COURSE INSTRUCTOR: Mr. Chandra Pal Gautam

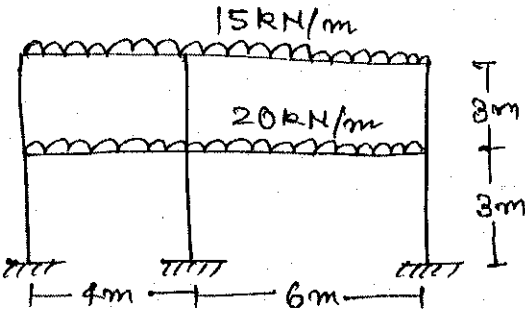
MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

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

(c) Use of calculator is allowed

Q.No	Question	CO	Marks
Q1	(i) Define stiffness and flexibility of a member. (ii) State the reasons for not using flexibility method in a design software. (iii) Explain the use of Approximate Analysis of Frames.	4	6
Q2	Determine the collapse load 'W', for the given frame. 	3	8
Q3	Solve the given truss by using stiffness matrix method. 	5	8
Q4	Derive the flexibility matrix for the given beam. 	5	8

Q5	Solve the given frame by using approximate analysis of frames. 	4	5
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UNIT TEST 3 EXAMINATIONS - MAY-2025