

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- APRIL-2023

COURSE CODE(CREDITS): 18B1WCE631

MAX. MARKS: 25

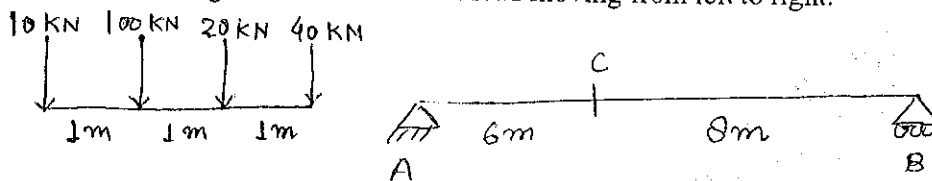
COURSE NAME: ADVANCED STRUCTURAL ANALYSIS

COURSE INSTRUCTORS: Chandra Pal Gautam

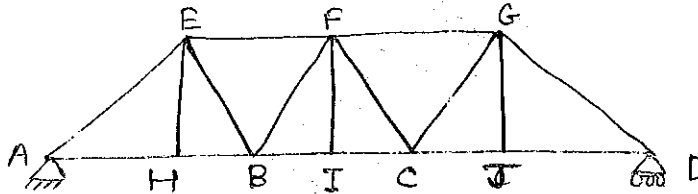
MAX. TIME: 1 Hour 30 Minutes

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

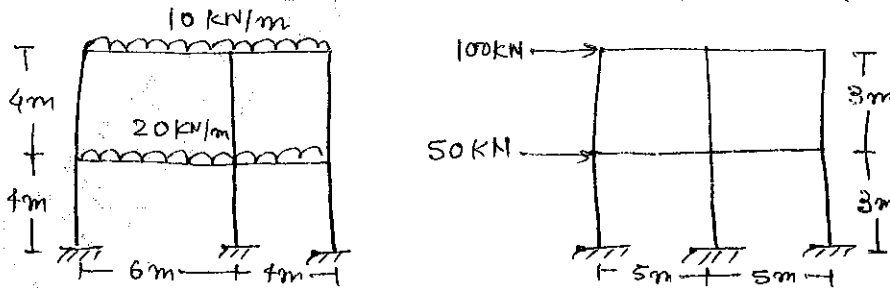
Q.1. For the given beam, find the value of maximum shear force and bending moment at section C, for the given combination of load moving from left to right. (CO2) [5]



Q.2 For the given truss, draw the ILD for member FI, FE and FC. (CO2) [6]



Q.3 Solve the given frames by using Approximate Method of Analysis. (CO3) [3+3 = 6]



Q.4 Mention the need of using plastic analysis. Explain different stages of beams which undergoes plastic stage and derive the formula for the same. (CO3) [3]

Q.5. Find the value of ultimate load for the given beam by using Plastic Analysis. Plastic moment is M_p . (CO3) [5]

