

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2022

M.Tech-I Semester (CE)

COURSE CODE (CREDITS): 11M1WCE111 (3)

MAX. MARKS: 15

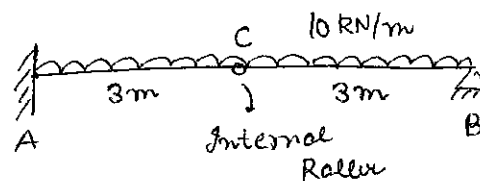
COURSE NAME: Advanced Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

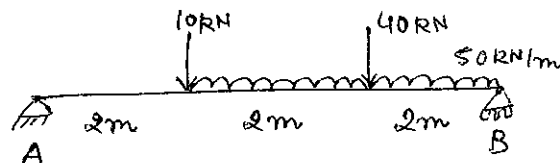
MAX. TIME: 1 Hour

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

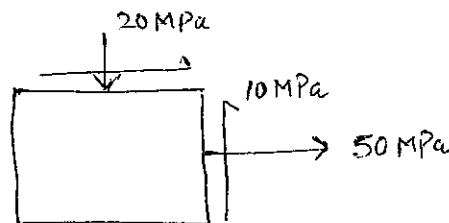
Q1. For the given beam draw shear force and bending moment diagram. Joint C is an internal roller. [5]



Q.2 For the given beam find slope at support A and deflection at $x = 3m$. [4]



Q.3 Find the principal stresses and the new stresses when the given element is rotated by 20° in anticlockwise direction. [3]



Q.4 For the given truss, find the force in member CD and CI. [3]

