

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION - APRIL - 2018

B.Tech.IV Semester

COURSE CODE:10B11CE413

MAX. MARKS:25

COURSE NAME: Structure Analysis

COURSE CREDITS: 04

MAX. TIME: 1.5Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. Assume any data if required

Q.1. Determine the reactions and the force in each member of the trusses shown in figure -1, by using the Force Method. (8) [CO2, CO3]

Q.2. Solve the frame shown in figure - 2, by Force Method. (9) [CO2, CO3]

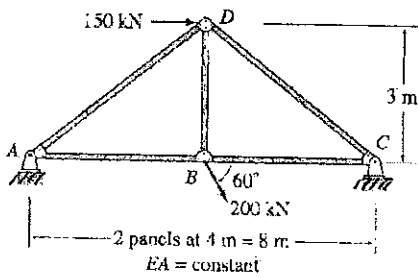


Figure - 1

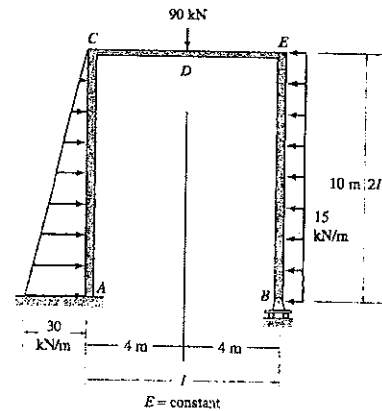
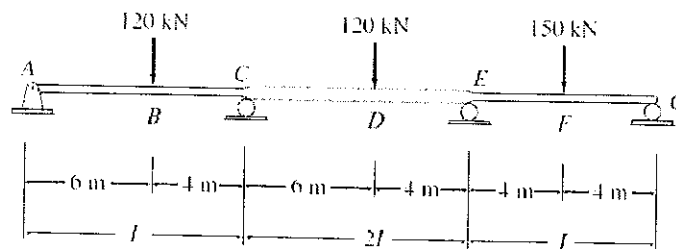


Figure - 2

Q.3. Solve the given beam by Three Moment Equation. Draw the bending moment diagram and deflected pattern of the beam. (8) [CO1, CO2, CO6]



$E = 200 \text{ GPa}$   
 $I = 500 (10^6) \text{ mm}^4$