JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2024

B.Tech-V Semester (CE)

COURSE CODE (CREDITS): 18B11CE513   MAX. MARKS: 35

COURSE NAME: Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam   MAX. TIME: 2 Hours

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Note: (a) *All questions are compulsory.*

(b)Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems. Assume the value of E = 200 GPa and I = 5 x 10^6 mm^4 for all problems.

Q.1. a. Discuss the advantage of Moment Distribution Method over slope deflection equation.
b. Explain the significance of distribution factor with example.
c. Prove that carryover in Moment Distribution Method is always 0.5.   [CO-3] [2+3+2 = 7]
Q.2. Solve the frame shown in Fig.1. by using slope deflection equation.   [CO-4] [10]
Q.3. Solve the beam shown in Fig.2. by using Moment Distribution Method.   [CO - 5] [8]
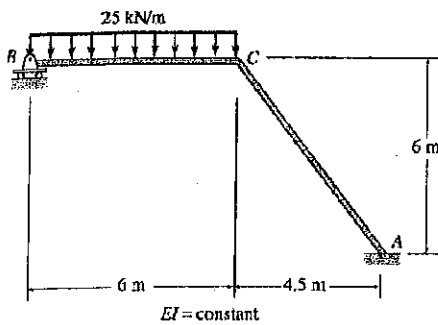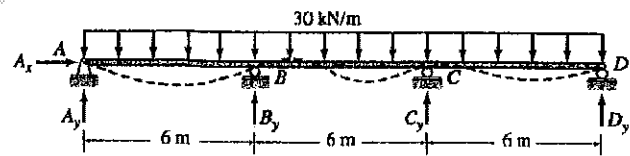

Fig.1.

Fig.2.

Q.5. Find the moments of the given frame by using Moment Distribution Method.   [CO - 5] [10]