JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2023

B.Tech-V Semester (CE)

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

COURSE NAME: Sturctural Analysis

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

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

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

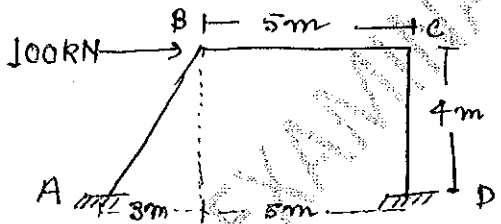
(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems. Assume the value of E = 200 GPa and I = 5 x 10^6 mm^4 for all problems.

Q.1. a. Differentiate between flexibity and stiffness of a member.

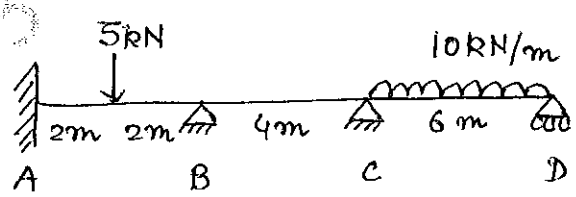
b. Explain the significance of distribution factor with example.

c. Prove that carryover in Moment Distribution Method is always 0.5. [CO-3] [2+3+2 = 7]

Q.2. Solve the given frame by using slope delflection equation. [CO-4] [10]



Q.3. Solve the given beam by using Moment Distribution Method. [CO - 5] [8]



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