

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May-2019

B.Tech. VIth Semester

COURSE CODE: 10B11CE615

MAX. MARKS: 35

COURSE NAME: Advanced Structural Analysis

COURSE CREDITS: 04

MAX. TIME: 2 Hours

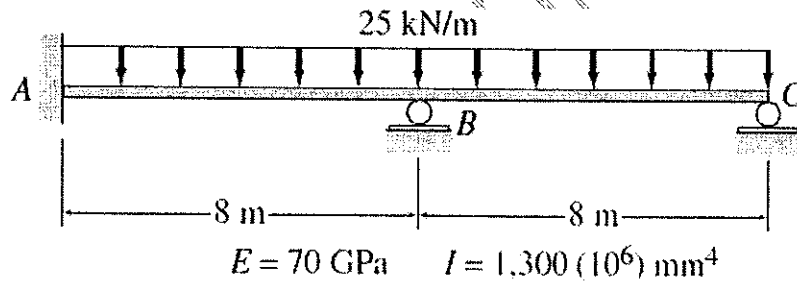
Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q.1. (i) Differentiate between flexibility and Stiffness of a member.
 (ii) Why flexibility matrix is not used in any software.
 (iii) Explain why flexibility matrix and stiffness matrix is symmetric and square.

(2+1+2 = 5)

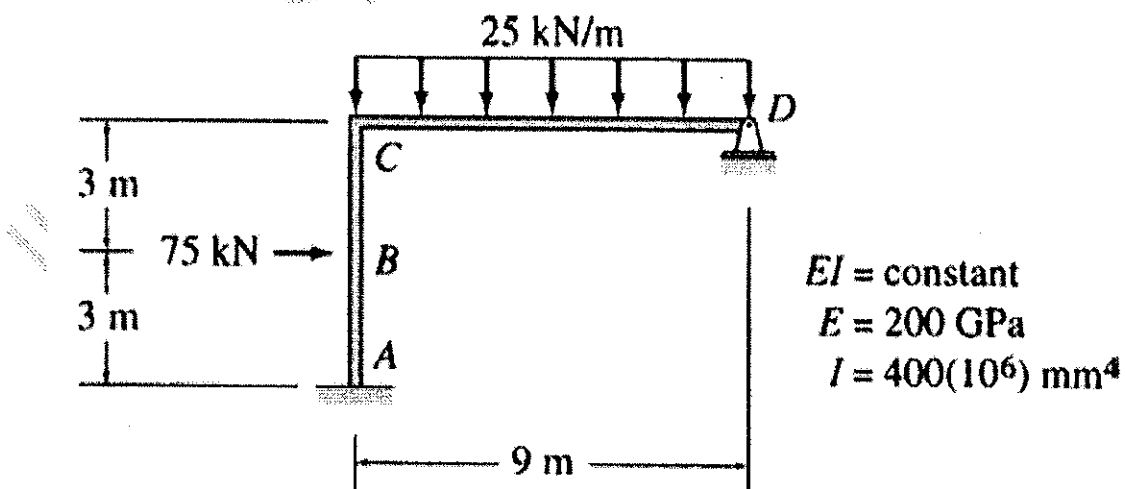
- Q.2. Solve the given beam by using flexibility matrix.

(8)



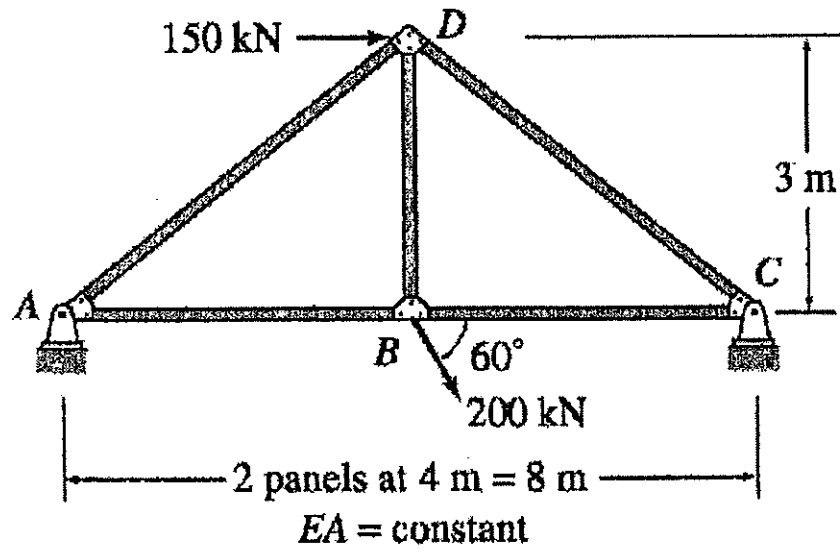
- Q.3. Solve the given frame by using flexibility matrix.

(8)



Q.4. Solve the given truss by using stiffness matrix method.

(7)



Q.5. Solve the given beam by using stiffness matrix method.

(7)

