

COURSE CODE(CREDITS): 18B11WCE631(3)

MAX. MARKS: 15

COURSE NAME: ADVANCED STRUCTURAL ANALYSIS

COURSE INSTRUCTORS: Mr. Chandrapal Gautam

MAX. TIME: 1 Hour

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

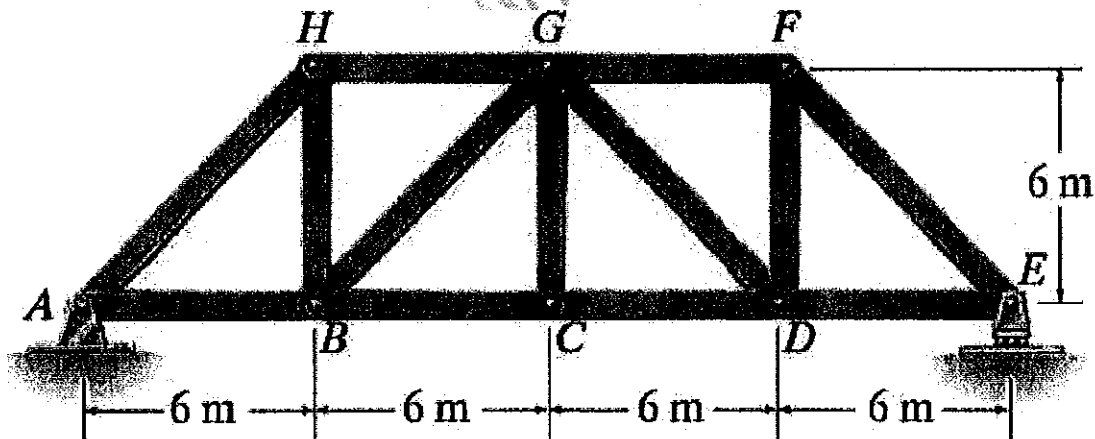
*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems.*

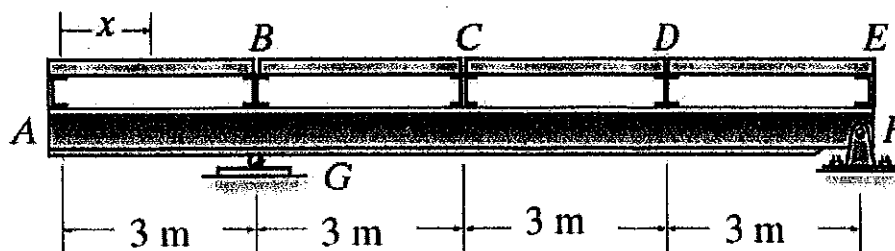
Q.1 For a several point moving load what are the two propositions to obtain the critical load position and amount of bending moment, explain with diagram. [2] [CO1]

Q.2 What do you understand by Influence Line Diagram, explain with help of Reaction, Shear and Bending Moment ILD for simply supported beam. [3] [CO1]

Q.3 Draw the influence line for the force in member CG of the bridge truss [3] [CO2]



Q.4 Draw the influence line for the shear in panel DE of the floor girder [3] [CO2]



Q.5 What do you understand by Müller Breslau Principle for drawing ILD. Solve the following using Müller Breslau Principle: [4] [CO2]

Construct the influence line for

- the reaction at A
- shear at D
- the moment F

