## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- 2025

## M.Tech-I Semester (CE)

COURSE CODE (CREDITS): 25M11CE113 (3)

MAX. MARKS: 15

COURSE NAME: Advanced Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

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

Q.No	Question	СО	Marks
Q1	Draw the shear force and bending moment diagram of the given beam.  30 kH 40 kN  10 kN/m  2m 2m 2m 2m	CO-1	3
Q2	Find the deflection of the given beam by using unit load method at B.  Assume EI constant for the beam.  10 kH/m  B	CO-1	4
Q3.	Find the deflection in the truss at the joint B along x direction. Assume AE is constant for all truss members.  B 10 RN 3m 5m A 4m 4m 600	CO-2	4
Q4.	Solve the given beam by using Force Method. Assume EI is constant for the complete beam.	CO-2	4