



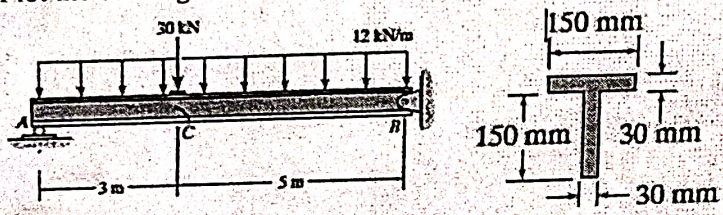
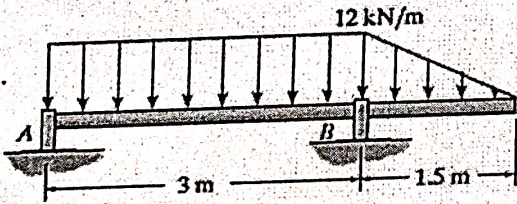
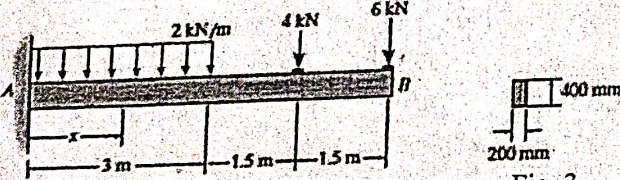
Continuous Assessment Test (CAT) – II - OCTOBER 2025

Programme	: B. Tech Civil Engineering	Semester	: Fall 25-26
Course Code & Course Title	: BCLE203L, Mechanics of Solids	Class Number	: CH2025260101857
Faculty	: Dr. I. Yamini Sreevalli	Slot	: E1+TE1
Duration	: 90 minutes	Max. Mark	: 50

General Instructions: Write only your registration number on the question paper in the box provided and do not write other information

Only non-programmable calculator without storage is permitted

**Answer all questions
(50 Marks)**

Q. No	Description	Marks	CO	BT Level
1	The simply supported beam has a cross-sectional area in the shape of T and loaded as shown in Fig. 1. Plot the Shear force diagram, Bending moment diagram Plot the bending stress and shear stress distribution over the beam cross sectional area at C.  Fig. 1	25	2	2
2	For the beam shown in the Fig. 2. Calculate the reactions and plot the shear force and bending moment diagram  Fig. 2	10	2	3
3	The wooden beam is subjected to the load shown in Fig. 3. Determine the deflection and the slope at end B. If $E_w = 12 \text{ GPa}$ and cross section as shown in Fig. 3.  Fig. 3	15	3	3

*****All the best *****