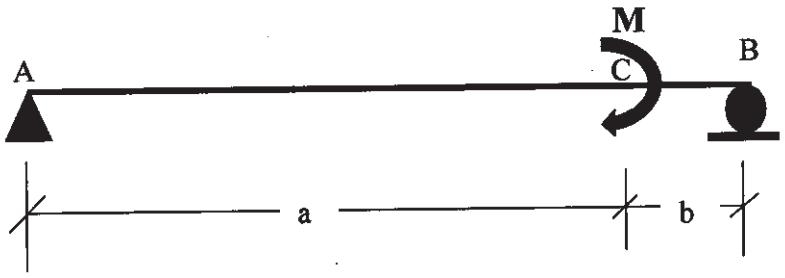
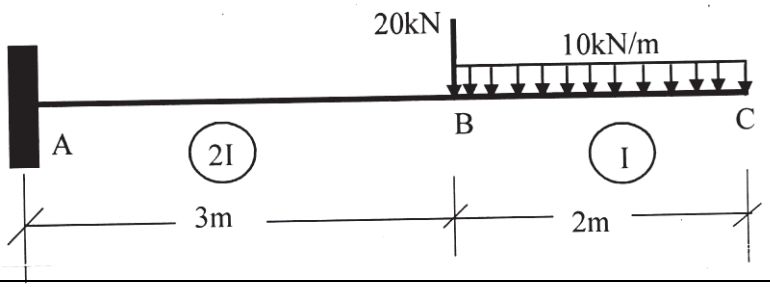
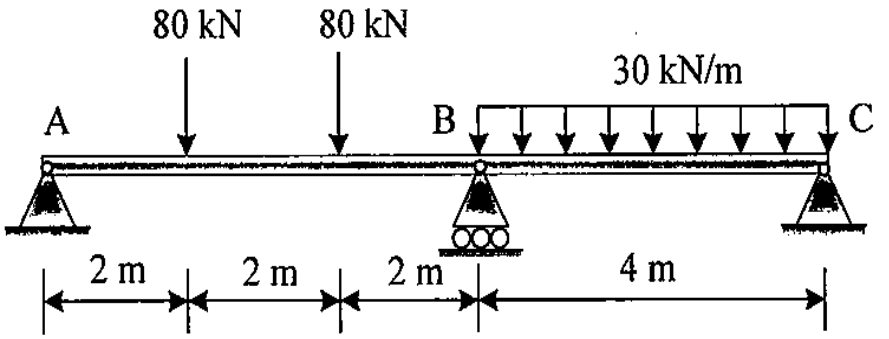
	PIMPRI CHINCHWAD EDUCATIONAL TRUST'S **PIMPRI CHINCHWAD COLLEGE OF ENGINEERING & RESEARCH** Plot No. B, Sector No. 110, Laxminagar, Ravet, Pune - 412101
Department of Civil Engineering	
Unit 1 Question Bank	**Structural Analysis – I** — **Date of display:** / **Date of submission:**

Q.N. 1	Derive equation to determine slope at 'A' by Macaulay's method. 'El' is constant. [L=a+b] 
Q.N. 2	Find slope and deflection at point 'B' for cantilever beam by conjugate beam method. 
Q.N. 3	A cantilever beam is subjected to uniformly distributed load 10 kN/m on entire span of 2 m; determine maximum slope and deflection in terms of EI.
Q.N. 4	Determine the static and kinematic indeterminacy of simply supported beam, propped cantilever and fixed beams.
Q.N. 5	State and explain static and kinematic indeterminacy. Determine the static and kinematic indeterminacy for the beam shown in Fig.

	
Q.N. 6	Find Slope and deflection for cantilever beam AB of span 2m loaded with uniformly distributed load 10 kN/m up to 1m from end A by moment area method. Assume uniform flexural rigidity.
Q.N. 7	A 4 m simply supported beam subjected to clockwise moment 20 kNm at mid span, determine maximum slope and deflection in term of EI.
Q.N. 8	Find slope and deflection for cantilever AB of span 4 m loaded with uniformly distributed load 10 kN/m up to 2 m from fixed end A by conjugate beam method. Assume uniform flexural rigidity.
Q.N. 9	Find maximum slope and deflection for cantilever AB loaded with uniformly distributed load 6 kN/m, on entire 2 m span by moment area method. Assume uniform flexural rigidity.