

UNIT-IV

S. No.	Questions	BTL	CO	PO
Part–A(Short Answer Questions)				
1	Define slope and deflection.	L1	CO1	1
2	Define radius of curvature.	L1	CO1	1
3	What is elastic curve?	L2	CO1	2
4	State the differential equation of elastic curve.	L1	CO1	1
5	What is Macaulay's method?	L2	CO1	2
6	State Mohr's first theorem.	L1	CO1	1
7	State Mohr's second theorem.	L1	CO1	1
8	What is a conjugate beam?	L2	CO1	2
9	Distinguish between real beam and conjugate beam.	L2	CO1	2
10	Define curvature.	L2	CO1	2
11	What is the significance of the section modulus?	L1	CO1	1
12	What is Macaulay's Method?	L2	CO1	2
13	What is a conjugate beam?	L1	CO1	1
14	State the relation between slope and shear in the conjugate beam.	L2	CO1	2
15	State the relation between deflection and bending moment in the conjugate beam	L2	CO1	2
Part– B(Long Answer Questions)				
1	Derive the differential equation of elastic curve.	L4	CO3	3
2	Determine slope and deflection of a cantilever carrying a point load using double integration method.	L4	CO3	3
3	Determine slope and deflection of a cantilever carrying UDL.	L4	CO3	3
4	Determine slope and deflection of a simply supported beam carrying a central load.	L3	CO3	2
5	Determine slope and deflection of a simply supported beam carrying UDL.	L4	CO3	3
6	Explain Macaulay's method with examples.	L4	CO3	3
7	State and prove Mohr's first theorem.	L4	CO3	3
8	State and prove Mohr's second theorem.	L3	CO3	2
9	Compare the Double Integration, Macaulay, Moment Area, and Conjugate Beam methods.	L4	CO3	3

Blooms Taxonomy Level (BT) (L1–Remembering; L2–Understanding; L3–Applying; L4– Analyzing; L5–Evaluating; L6–Creating)