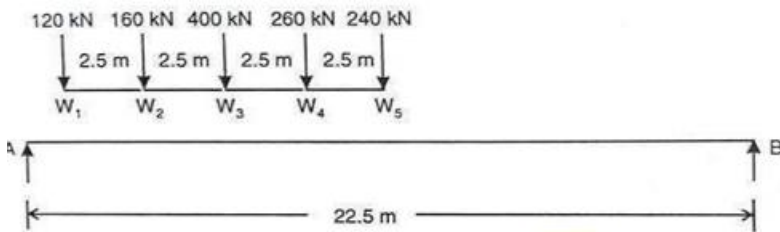
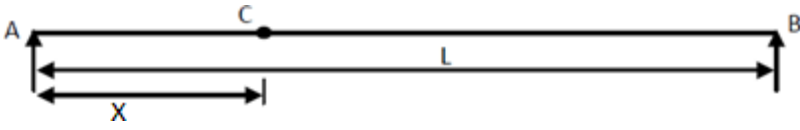


UNIT-V

S. NO	Questions	BTL	CO	PO
PART-A(STORTANSWERQUESTIONS)				
1	Four point loads of 120 kN, 160 kN, 160 kN and 80 kN spaced 2 m between consecutive loads move on a girder of 25 m span from left to right with the 120 kN load leading. Calculate the maximum bending moment at a point 10 m from left support. Also calculate the position and value of the absolute maximum bending moment.	L2	CO 5	2
2	Four equal loads of 150 kN each equally spaced at 2 m apart followed by a uniformly distributed load of 60 kN/m at a distance of 1.5 m from the last 150 kN load cross a girder of 20 m span from right to left. Using influence lines, calculate the shear force and bending moment at a section 8 m from left hand support when the leading 150 kN load is at 5 m from the left hand support.	L1	CO 5	1
3	A UDL of length 6 m and intensity 20 kN/m moves across a simple beam of span 20 m. Determine the maximum negative and positive shear.	L2	CO 5	3
4	A train of 5 wheel loads crosses a simply supported beam of span 22.5 m as shown in Figure 3.3. Using	L1	CO 5	2
5	Calculate the maximum positive and negative shear forces at midspan and absolute maximum bending moment anywhere in the span. 	L3	CO 5	1

S.NO	Questions	BT L	CO	P O
PART-B(LONGANSWERQUESTIONS)				
1	A train of concentrated loads shown in Figure 3.4. The loads move from left to right on a simply supported girder of span 16.0m. Determine absolute maximum bending moment	L1	CO5	1
2	For a simply supported beam of span 'L' as shown in Figure 3.5 draw: (a) Influence line for R_A . Influence line diagram for R_B . Influence line diagram for shear force at 'C'. 	L3	CO5	2
3	For a truss as shown in Figure 3.6, draw the influence line diagram for the force in member P, Q, R, S of the truss.	L2	CO5	1
4	A girder having a span of 18m is simply supported at the ends. It is traversed by a train. The 50kN load is leading. Find the maximum bending moment which can occur (i) Under the 200	L1	CO5	2
5	a) A single load of 100kN rolls along a girder of 20m span. Draw the diagrams of maximum bending moment and shear force (positive and negative). What will be the absolute maximum positive shear force and bending moment? In a simply supported girder AB of span 20 m, Determine the maximum bending moment and maximum shear force at a section 5m from A, due to the passage of a uniformly distributed load of intensity 20kN/m, longer than the span	L2	CO5	1

