

15CV7

OR

- 4 Design a simply supported gantry girder to carry an electrically operated travelling crane with the following details:
- (i) Span of the crane bridge = 25 m
 - (ii) Span of the gantry girder = 8 m
 - (iii) Wheel base = 3.5 m
 - (iv) Crane capacity = 200 kN
 - (v) Weight of crane bridge = 150 kN
 - (vi) Weight of trolley (crab) = 75 kN
 - (vii) Minimum hook distance = 1.0 m
 - (viii) Weight of rail = 0.30 kN/m
 - (ix) Height of rail = 105 mm
- Draw neatly cross section of gantry girder showing all details. Also draw side view.

(40 Marks)

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