

ASSIEMENT

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1:- Fill in the blanks.

(1) If I want to know that shear force and bending moment diagram produced by moving truck on a bridge then the method I prefer to use will be: But force method.

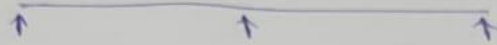
(2) Beam having all section parallel will be determinant !

(3) The structure of which all reaction and forces can be analyzed or formed by using equation of equilibrium is statically determinant !

(4) In a formula $r = 3n$, n shows: no of members !

For a fix and support the number of reaction are: Three !

QNO 2:-



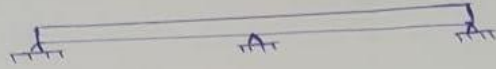
Formula:-

$$R = 3n$$

$$3 = 3(1)$$

$3 = 3$ determinant

(B)



∴ Formula:-

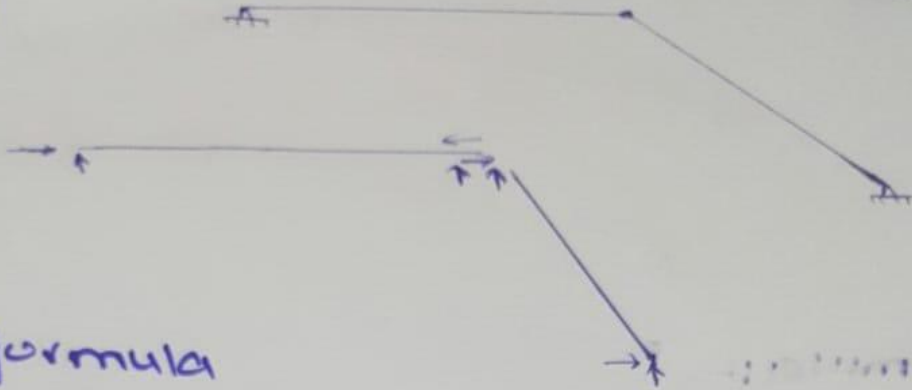
$$R = 3n$$

$$5 = 3(1)$$

$$5 > 3$$

Indeterminate by 2°

(C)



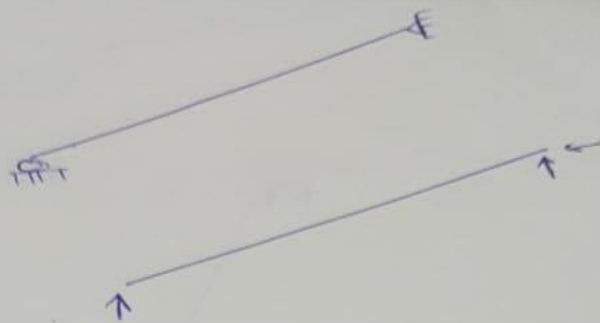
Formula

$$R = 3n$$

$$G = 3(2)$$

$$G = 6 \text{ Determinate}$$

(D)



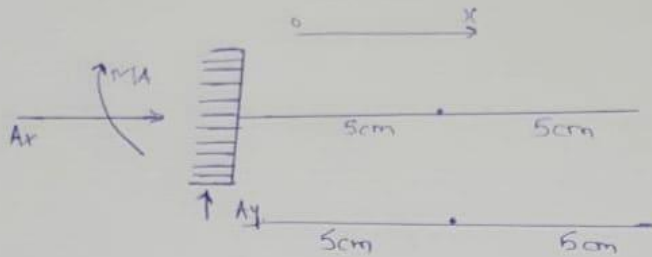
Formula:-

$$R = 3n$$

$$3 = 3(1)$$

$3 = 3$ determinate.

Q No = 3.

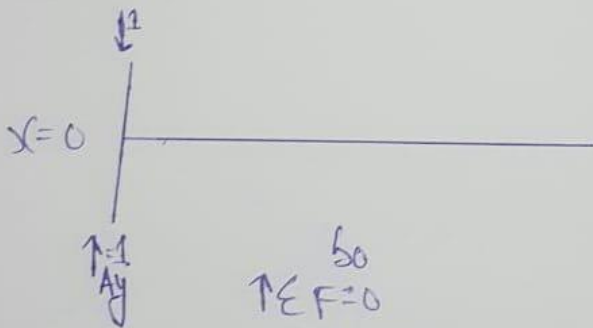


Find influence line for the reaction at A_y due to moving concentrated forces.

So for solution:-

- Use unit force statistics
- Place the load and calculate.

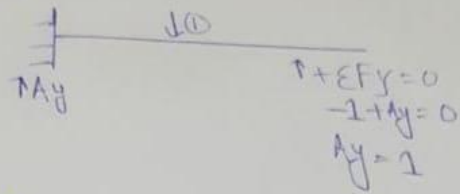
If $x=0$



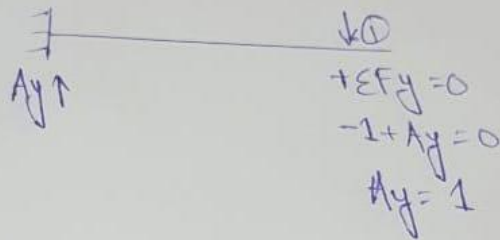
$$\begin{aligned} \text{So} \\ \uparrow \Sigma F = 0 \\ -1 + A_y = 0 \\ A_y = 1 \end{aligned}$$

x	A_y
0	1
5	1
10	1

If $x = 5\text{ m} :-$



If $x = 10\text{ m} :-$



So Influence Line :-

