

ASSIGNMENT

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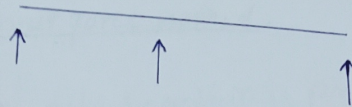
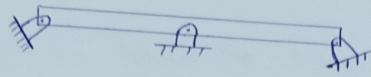
①

(1) Fill in the blanks.

- (1) If I want to know the shear force and bending moment diagram produced moving loads on a bridge then the method of prefer to use be brut force method.
- (2) Beam having all reactions paralled will be determinant.
- (3) the structure for which all reactions and forces be analyzed or, formed by using equations of equilibrium is statically determinant.
- (4) In a formula $r = 3n$, n shows no of members.
- (5) for fix end support the number of reactions are three.

②

Q no: 2



Formula:

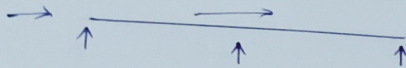
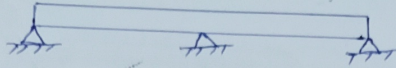
$$R = 3n$$

$$3 = 3(1)$$

$$3 = 3 \text{ determinant}$$

3

B



Formula:

$$R = 3n$$

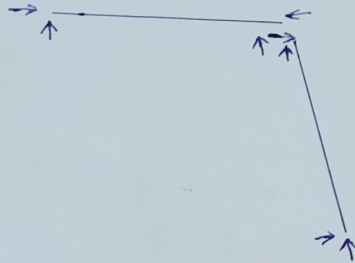
$$S = 3 (1)$$

$$S > 3$$

Indeterminate by 2°

(C)

(h)



Formula:

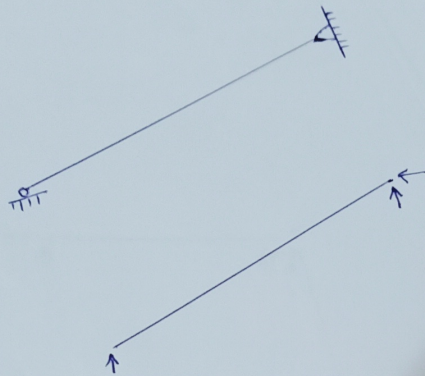
$$R = 3m$$

$$b = 3 (\cdot 2)$$

$$b = 6 \text{ Determine}$$

(D)

3



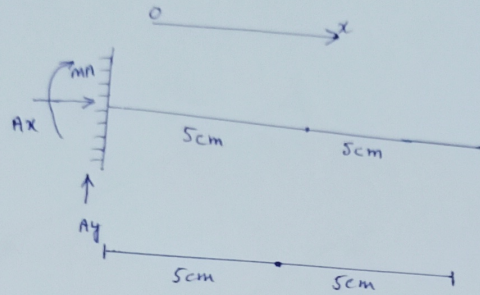
Formula :

$$R = 3n$$

$$3 = 3(1)$$

$$3 = 3 \text{ determinate}$$

Q.No = 3:-

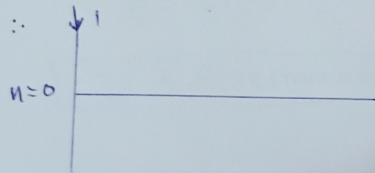


Find influence line for the reaction at A_y due to moving concentrated force.

So for solution:-

- use but force statistics
- place the load and calculate.

If $\eta = 0$ \therefore



$$\uparrow A_y = 1 \text{ so}$$

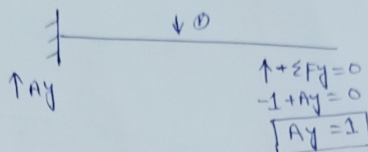
$$\uparrow \sum F = 0$$

$$-1 + A_y = 0$$

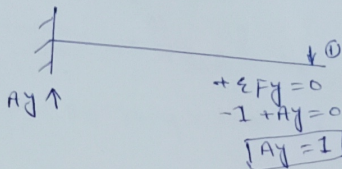
$$\boxed{A_y = 1}$$

x	A_y
0	1
5	1
10	1

If $x = 5m$:



If $x = 10m$:



So Influence line:

