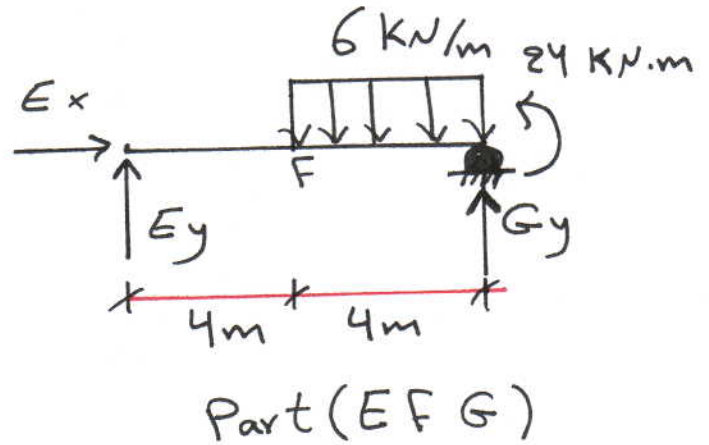
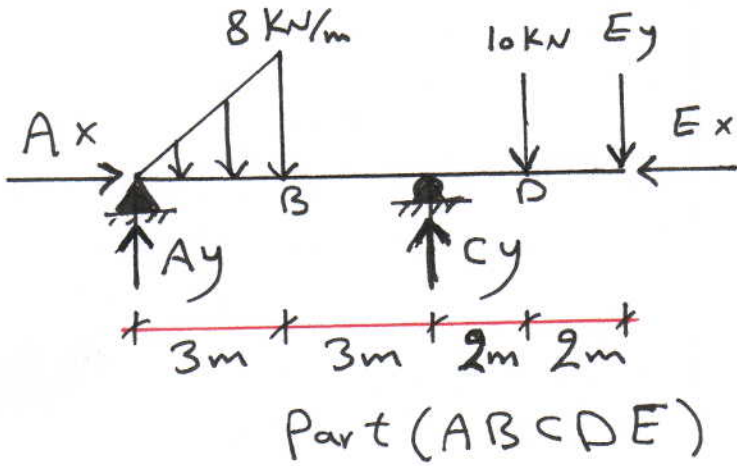


Quiz (A)

Sol.:-



From part (EFG)

$$\sum F_x = 0 \rightarrow \boxed{E_x = 0}$$

$$\sum M_G = 0 \curvearrowright$$

$$24 + 6(4)(2) - E_y(8) = 0$$

$$\boxed{E_y = 9 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow +$$

$$9 + G_y - 6(4) = 0$$

$$\boxed{G_y = 15 \text{ kN} \uparrow}$$

From part (ABCDE)

$$\sum F_x = 0 \rightarrow \boxed{A_x = 0}$$

$$\sum M_A = 0 \curvearrowright$$

$$\frac{8(3)}{2}(2) - C_y(6) + 10(8) + 9(10) = 0 \quad \boxed{C_y = 32.333 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow +$$

$$32.333 + A_y - \frac{8(3)}{2} - 10 - 9 = 0 \quad A_y = -1.333 \text{ kN}$$

$$\boxed{A_y = 1.333 \text{ kN} \downarrow}$$

The 11th Chapter



Chapter 11

Reaction forces

The reaction forces at the supports are equal and opposite to the applied loads.

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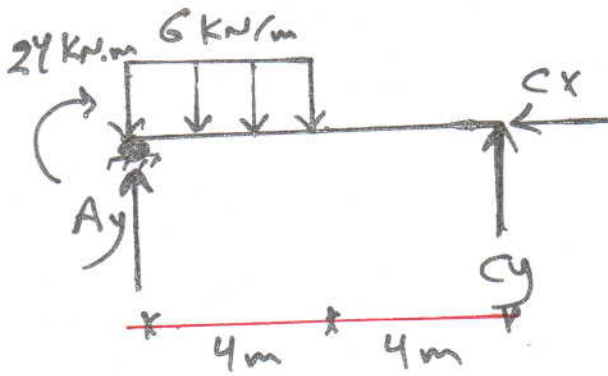
The reaction forces at the supports are equal and opposite to the applied loads.

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The reaction forces at the supports are equal and opposite to the applied loads.

- 0 - Quiz (A)

Sol.:



Part (ABC)

From Part (ABC)

$$\sum F_x = 0 \rightarrow \boxed{C_x = 0}$$

$$\sum M_A = 0 \uparrow$$

$$C_y(8) - 24 - 6(4)(2) = 0$$

$$\sum F_y = 0 \uparrow$$

$$A_y + 9 - 6(4) = 0$$

$$\boxed{C_y = 9 \text{ kN} \uparrow}$$

$$\boxed{A_y = 15 \text{ kN} \uparrow}$$

From part (CDEFG)

$$\sum F_x = 0 \rightarrow \boxed{G_x = 0}$$

$$\sum M_G = 0 \uparrow$$

$$E_y(6) - 9(10) - 10(8) - \frac{8(3)}{2}(2) = 0$$

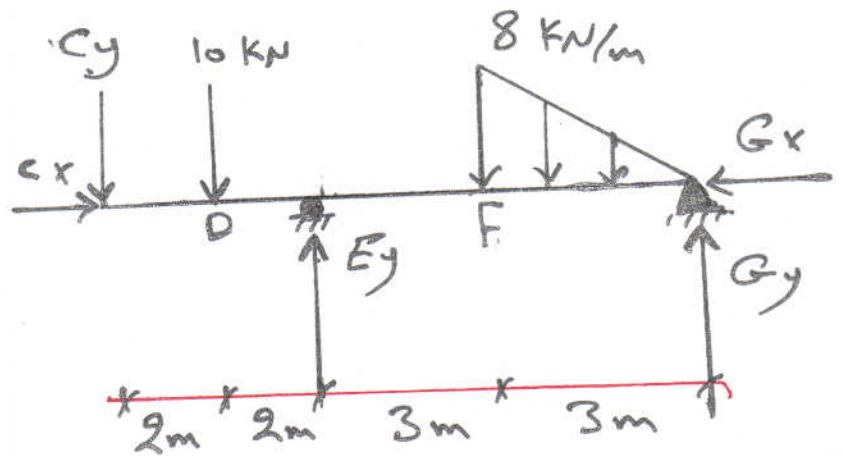
$$\boxed{E_y = 32.333 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow$$

$$32.333 - 9 - 10 - \frac{8(3)}{2} + G_y = 0$$

$$G_y = -1.333 \text{ kN}$$

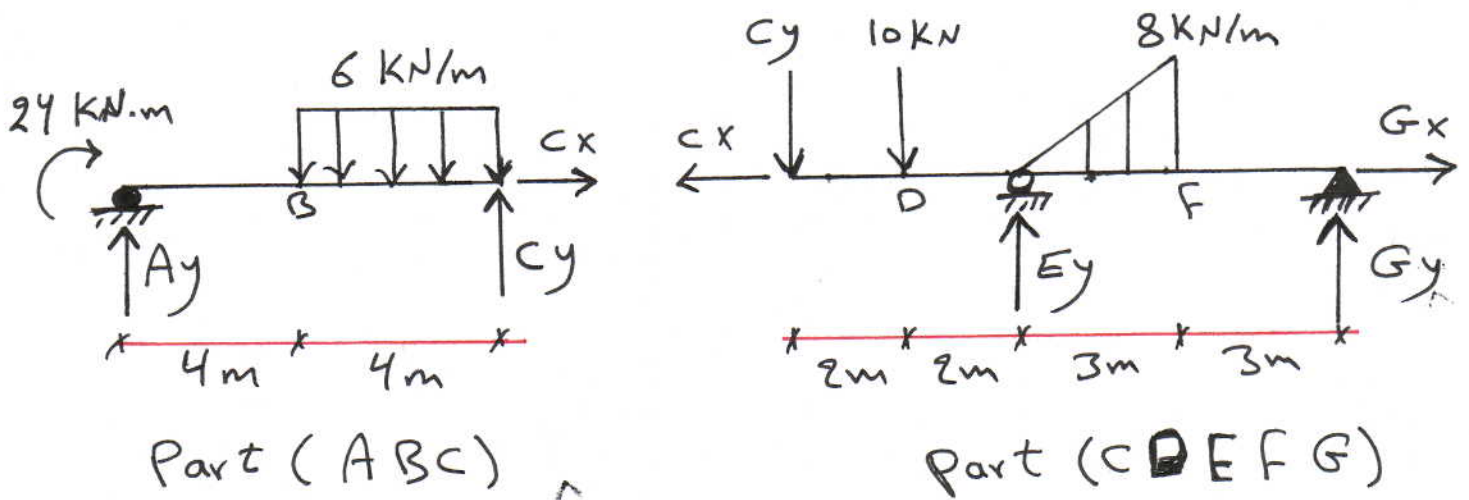
$$\boxed{G_y = 1.333 \text{ kN} \downarrow}$$



Part (CDEFG)

Quiz (B)

Sol:-



From part (ABC)

$$\sum F_x = 0 \rightarrow \boxed{C_x = 0}$$

$$\sum M_C = 0 \curvearrowright$$

$$6(4)(2) - 24 - A_y(8) = 0$$

$$\sum F_y = 0 \uparrow + \quad 3 + C_y - 6(4) = 0$$

$$\boxed{A_y = 3 \text{ kN} \uparrow}$$

$$\boxed{C_y = 21 \text{ kN} \uparrow}$$

From part (CDEFG)

$$\sum F_x = 0 \rightarrow \boxed{G_x = 0}$$

$$\sum M_G = 0 \curvearrowright$$

$$E_y(6) - 21(10) - 10(8) - \frac{8(3)}{2}(4) = 0 \quad \boxed{E_y = 56.333 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow +$$

$$56.333 - 21 - 10 - \frac{8(3)}{2} + G_y = 0 \quad G_y = -13.333 \text{ kN}$$

$$\boxed{G_y = 13.333 \text{ kN} \downarrow}$$



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Handwritten text, possibly a list of components or a description.

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Handwritten text, possibly a list of components or a description.

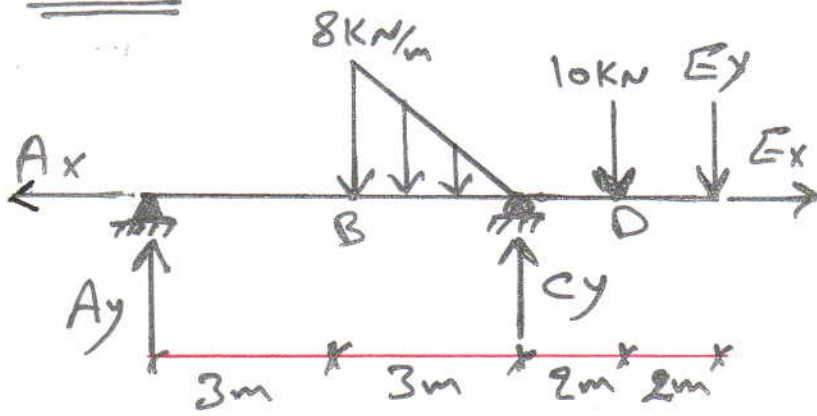
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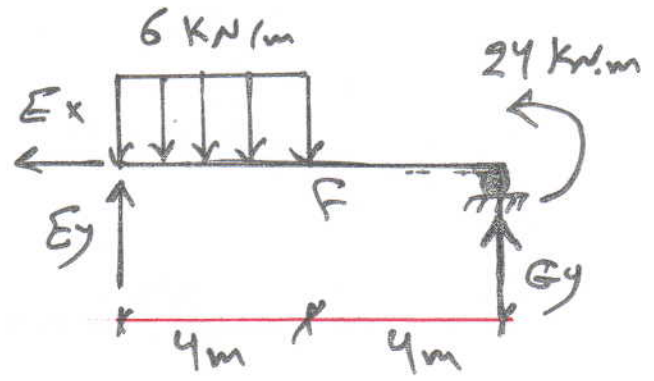
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- ۱ - Quiz (B)

Soln-



Part (ABCDE)



Part (EFG)

From part (EFG)

$$\sum F_x = 0 \rightarrow \boxed{E_x = 0}$$

$$\sum M_E = 0 \uparrow$$

$$24 + G_y(8) - 6(4)(2) = 0$$

$$\boxed{G_y = 3 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow$$

$$3 + E_y - 6(4) = 0$$

$$\boxed{E_y = 21 \text{ kN} \uparrow}$$

From part (ABCDE)

$$\sum F_x = 0 \rightarrow \boxed{A_x = 0}$$

$$\sum M_A = 0 \uparrow$$

$$\frac{8(3)}{2}(4) + 10(8) + 21(6) - C_y(6) = 0$$

$$\boxed{C_y = 56.333 \text{ kN} \uparrow}$$

$$\sum F_y = 0 \uparrow$$

$$A_y - \frac{8(3)}{2} + 56.333 - 10 - 21 = 0$$

$$A_y = -13.333 \text{ kN}$$

$$\boxed{A_y = -13.333 \text{ kN} \downarrow}$$