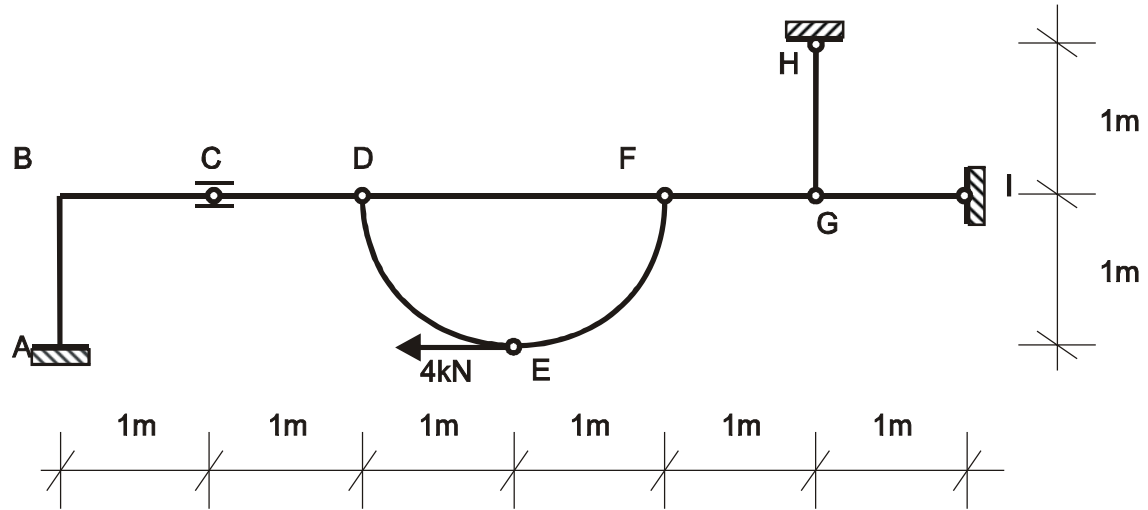


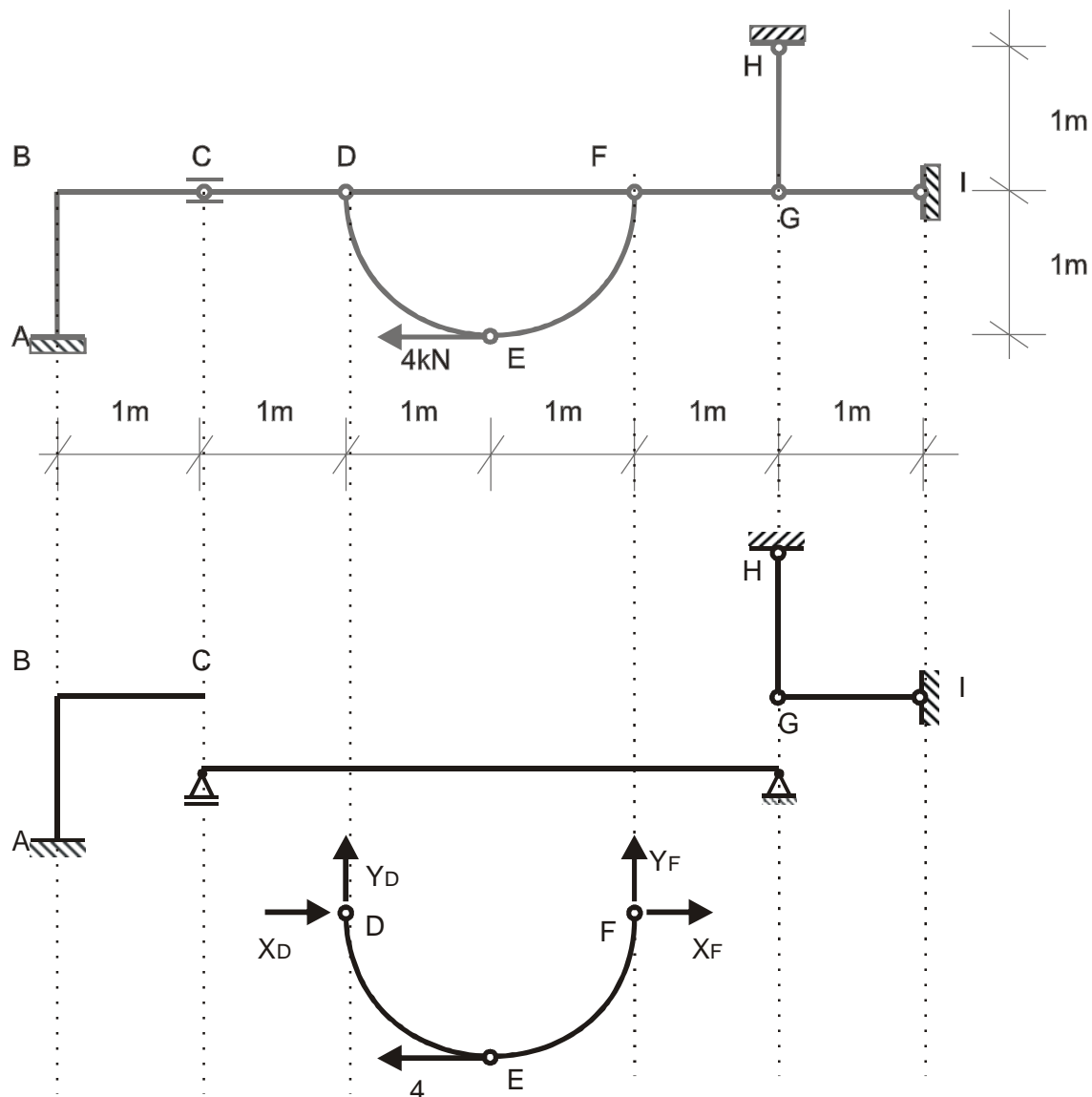
nome.....n°USP.....

**Questão 2 (3,5)** Na estrutura da figura determine:

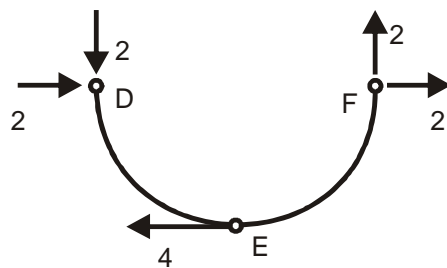
- a) As subestruturas que a compõem;
- b) As reações de apoio em cada uma destas subestruturas.



**Resposta:**



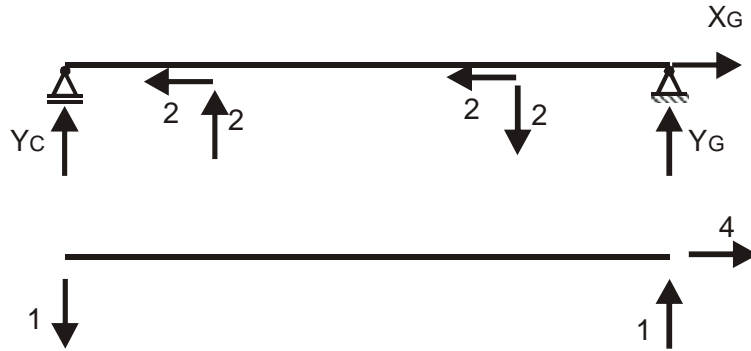
1)



$$Y_D \cdot 2 - 4 \cdot 1 = 0 \Rightarrow Y_D = 2$$

$$2 \cdot 1 - X_D \cdot 1 = 0 \Rightarrow X_D = 2$$

2)

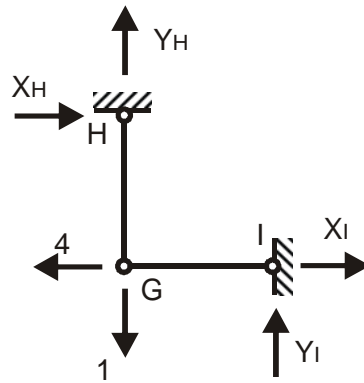


$$2 \cdot 1 - 2 \cdot 3 + Y_G \cdot 4 = 0 \Rightarrow Y_G = 1$$

$$Y_C = -1$$

$$X_G = 4$$

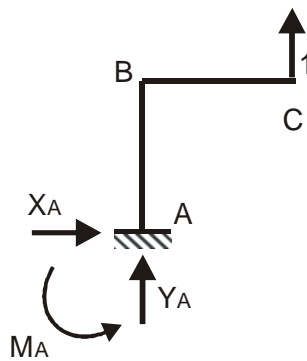
3)



$$Y_I \cdot 1 = 0 \Rightarrow Y_I = 0 \Rightarrow Y_H = 1$$

$$X_H = 0 \Rightarrow X_I = 4$$

4)



$$Y_A = -1$$

$$X_A = 0$$

$$M_A = -1$$