Question Five (5 marks)
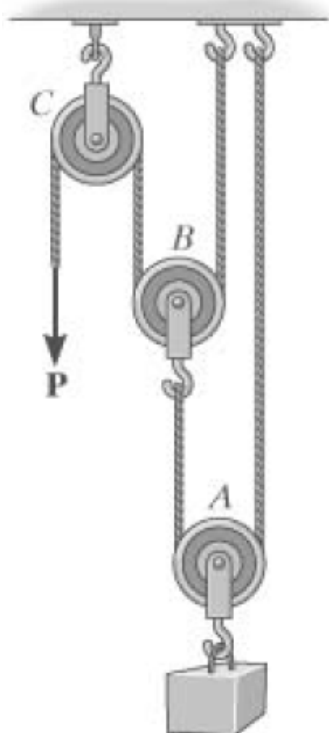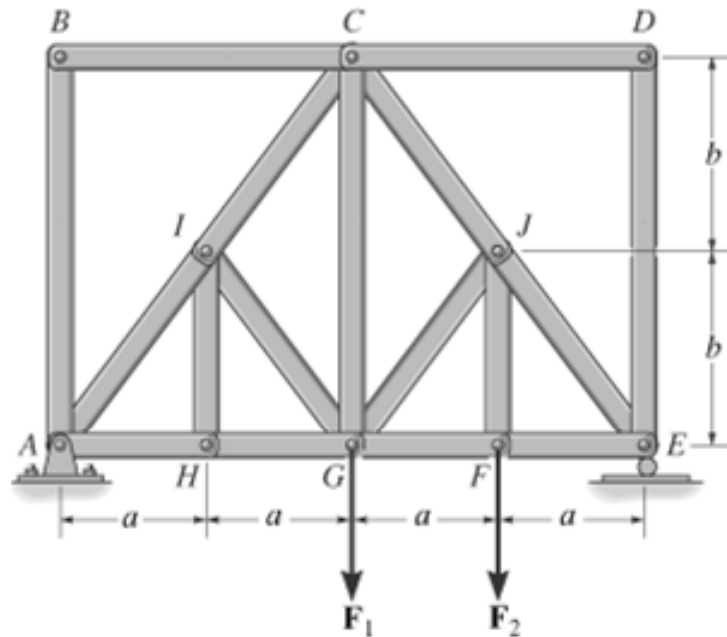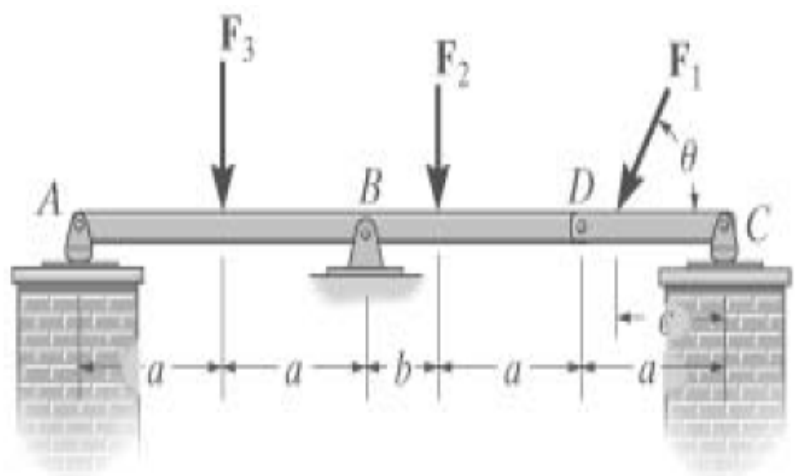
Find zero-force members in the shown truss.

Question six (5 marks)

Determine the force P needed to hold the block of mass 5kg in equilibrium.

Question seven (10 marks)

The compound beam is pin supported at B and supported by rockers at A and C. There is a pin at D. Determine the reactions at the supports. Take $F_1 = 7$ kN, $F_2 = 6$ kN, $F_3 = 16$ kN, $\theta = 60°$, a = 4 m, b = 2 m, and c = 3 m.

Dr. Raafat Ayad
Dr. Rola Afify