

Theoretical Part (6 points)

Define:

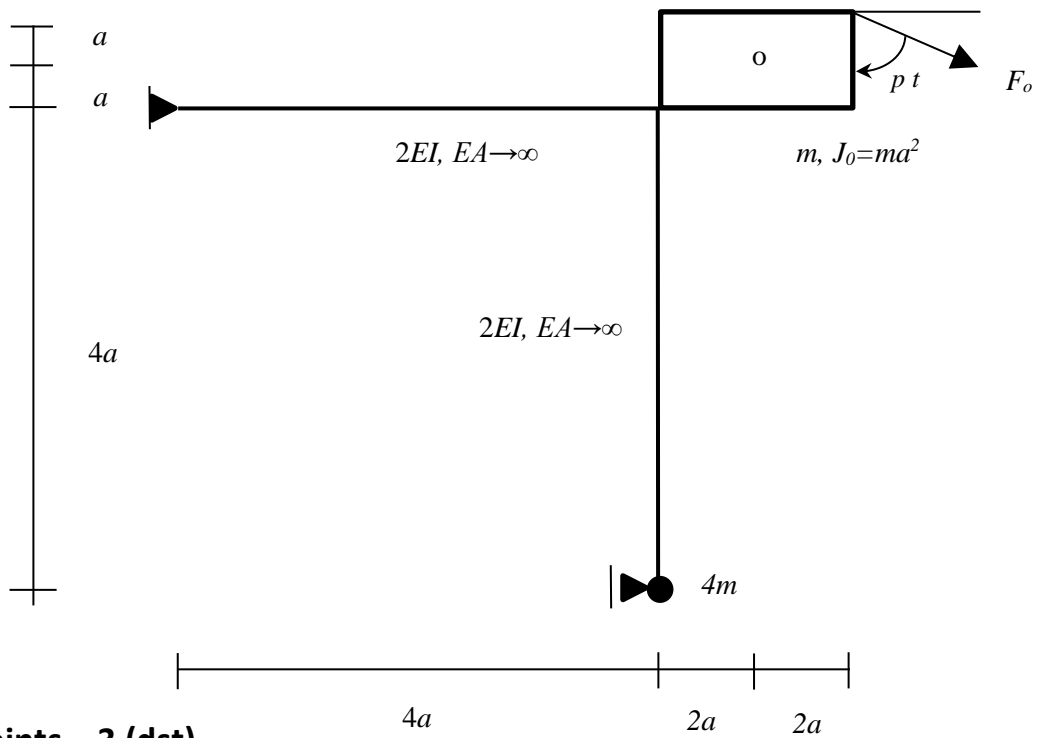
1) Eigenproblem (2 points)

2) Coupling in dynamic systems (2 points)

3) Orthogonality of Normal Modes (Proof) (2 points)

**Practical part (6 points)****4) Find elements of matrix equation of motion**

- 1. Assume general coordinate system  $q$  (1point) and find**
- 2. mass matrix (4 points)**
- 3. excitation vector (1 point)**

**7 points – 3 (dst)**