



Name:-

ID:-

Signature

(Equally Distributed Marks)

Q1:(a ) Prove that the natural frequency for pendulum

$$\omega_n = \sqrt{g/L} \quad \text{in fig(1a)}$$

$$\omega_n = \sqrt{K/9m} \quad \text{in fig (1b)}$$

Q2: find the natural frequency and mode shape for the system shown in fig. (2)

Q3: write the equation of motion only for the damping system shown in fig. (3)

Q4. The forced vibration system shown in fig.(4) Find the steady state Response using crammers' rules.

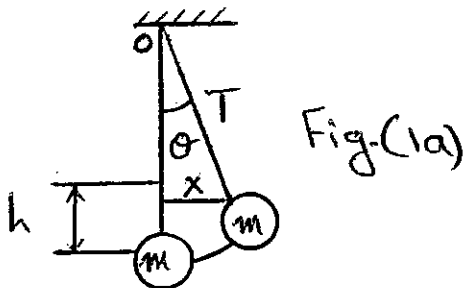


Fig.(1a)

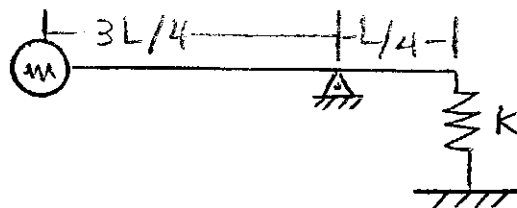


Fig.(1b)

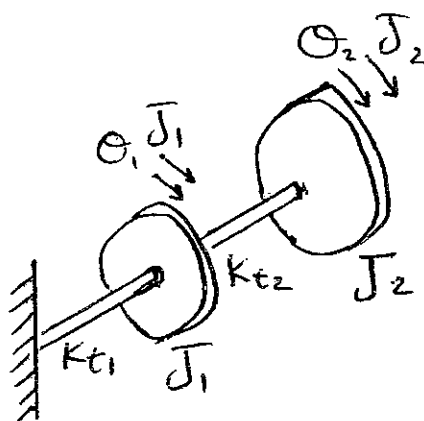


Fig.(2)

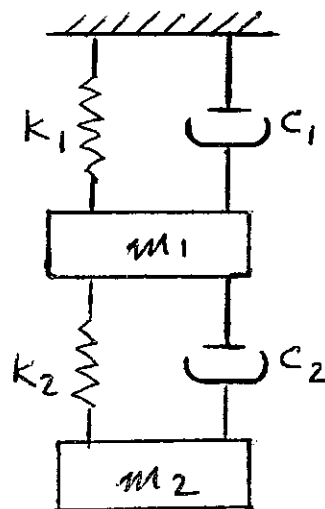


Fig.(3)

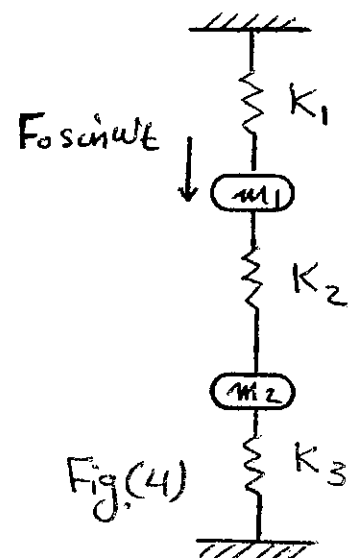


Fig.(4)