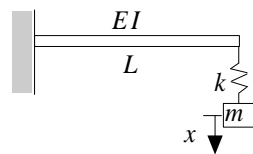


#1 (30)

2002. 4. 3.

- 1.[6] _____ .
 (a) _____ (system) _____ (free response) 가?
 (b) _____ (degree of freedom) 가?
 (c) _____ 가 ?

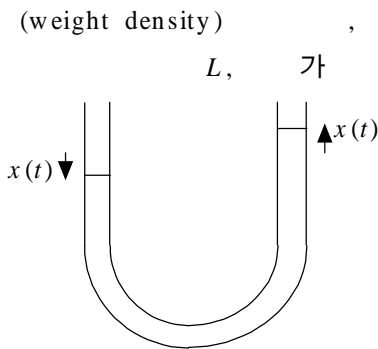
- 2.[6] 가 L _____ EI ,
 k _____ ,
 m 가 _____ ,
 가 _____ k_{eq} .



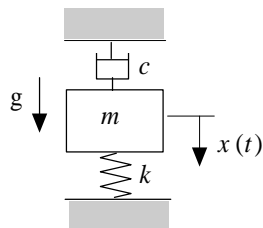
- 3.[6] 1 _____ , $m = 3 \text{ kg}$,
 $c = 3 \text{ kg/s}$, $k = 10 \text{ N/m}$.

- (a) _____ , _____ ,
 _____ .
 (b) $x_0 = 0$, $v_0 = 1 \text{ mm/s}$,
 $x(t)$ sine _____ .

- 4.[6] U _____ (manometer)



- 5.[6] _____ m , _____ c _____ ,
 k _____ 가 _____ ,
 g _____ .
 (a) _____ (free-body diagram)
 (b) _____ 가 _____
 (c) _____ 가 _____



#2 (30)

2002. 5. 8.

- 1.[6] _____ 가 _____ 1 _____ .

$$\bar{X} = \frac{1}{\sqrt{(1-r^2)^2 + (2\zeta r)^2}}$$

- (a) _____ = 0.1, 0.5, 0.9 _____ 가 _____ ,
 r _____ \bar{X} _____ .
 (b) _____ = 0.5 _____ \bar{X} 가 _____ 가
 r _____ 가? _____
 (c) _____ = 0.5 _____ \bar{X} _____ 가? _____

- 2.[6] _____ $20 \times 10^3 \text{ N/m}$ _____ 가 700
 N/(m/s) _____ 80 kg _____ 가 _____
 _____ 가 _____
 $40 \cos 10t \text{ N}$ _____ 가 _____ .

- (a) _____ 가 _____ , _____
 $x_p(t)$ _____ .
 (b) _____ 가 _____ (steady-state)
 $x_p(t)$ _____ .
 (c) _____ (transient)
 $x(t)$ _____ .

- 3.[6] _____ _____
 m , _____ k , _____ c _____ .

- 4.[6] _____
 _____ 가 _____ , _____
 5 mm _____ , _____ 가 _____
 _____ 가 _____ 0.5 mm

- 5.[6] _____ m , _____ c , _____ k 1 _____ 가
 _____ , _____ $1 \text{ N} \cdot \text{s}$ _____
 _____ , _____ $x(t)$ _____