

? = one equation for the system is  $C(dH1/dt1)$   
(2 نقطة)



- $Q1 + Q3 - Qo1 - Qo2$
- $Q1 + Q3 - Qo1 - Qo2 - Qo3$
- $Q1 + Qo3$

$( (12/(s+1)) + ((s+1)/2) + 1 ) / 2 - \text{○}$

$( (12/(s+1)) - ((s+1)/2) - 1 ) / 2 - \text{○}$

none

$( 1 - (2/(s+1)) + (12/(s+1)) ) / ((s+1)/12) \text{○}$

$( 1 + (2/(s+1)) + (12/(s+1)) ) / ((s+1)/12) \text{○}$

for the following system if  $R_{in} = 1 \text{ ohm}$  and  $R_f = 8 \text{ ohm}$   
..... = and  $V_{in} = 1 \text{ volt}$  then  $V_{out}$   
(نقطة 2)

2

4

0.5

1

8

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7. final value for  $1/(s(s^2 + 2s + 5))$  is \*  
(1 Point)

1/10

1/2

0

infinity

1/5

8. in matlab `syms s t; ilaplace(1/s^2+1/(2*s))` \*  
(1 Point)

2t

none

$u(t) + t$

$t + 1/5$

$t + 1/2$

Done

Edit

درجات ...em dynamics final (4) الواجبات تقريرا ملاحظات التصوف المشورات ملان تقريرا ملاحظات التصوف المشورات ملان

underdamped

critically damped

13

Point  $p = -0.7 + j0.9$  is on the root locus if  $k$  is selected to achieve that point; then the natural frequency will be (2 نقطة)

2.15

0.47

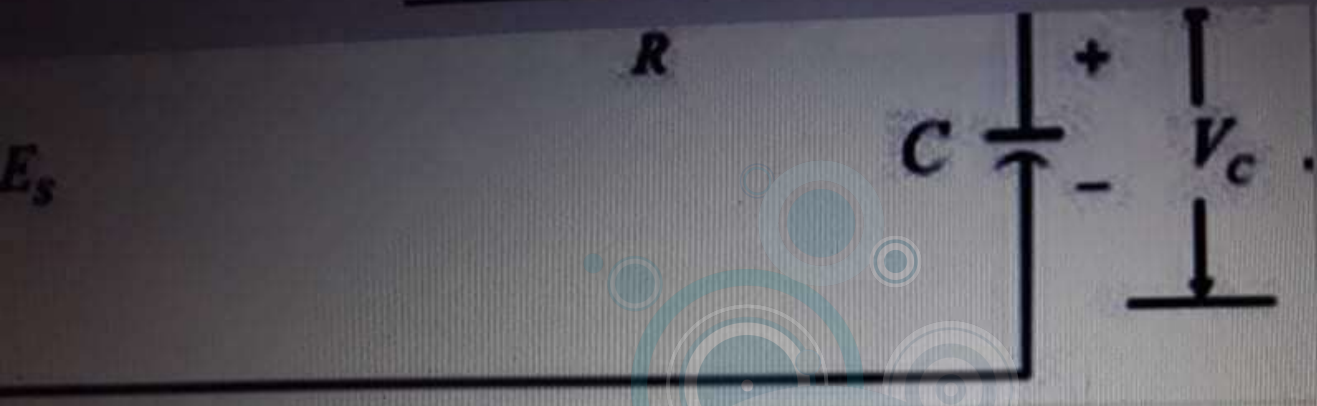
0.7

0.9

1.14

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More




- 0.25-
- 4-
- 2-
- 1-
- none

if  $G(s) = \frac{10}{s^2 + 2s + 10}$  the system is

3. The  $X'' + X = u(t)$ ;  $X'(0)=0$ ;  $X(0)=0$   $X(s) = *$   
(1 Point)

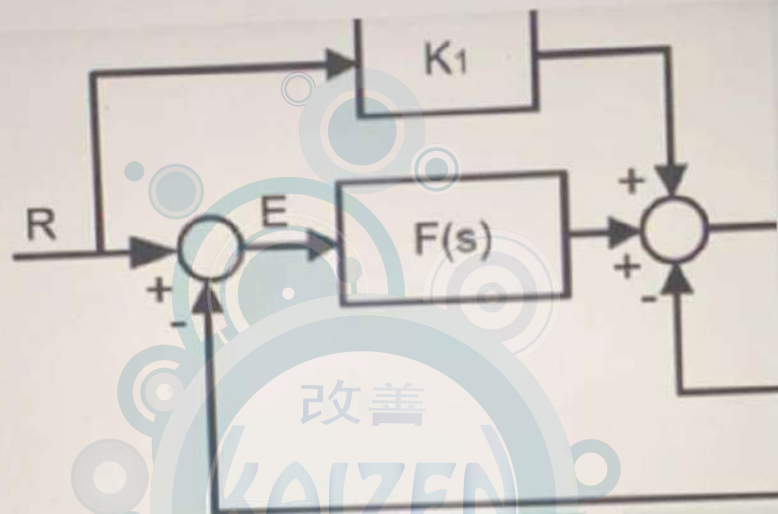
- $1/s$
- $1/(s^2+1)$
- $1/(s * (s^2 + 1))$
- $1/(s * (s+1))$

4. laplace transform for  $1/(s*(s^2+2))$  is \*   
(1 Point)

- $1/2 - \sin(2*t)/2$
- $1/2 - \cos(2^{1/2}*t)/2$
- $1/2 - \sin(2^{1/2}*t)/2$
- $1/2 - \cos(2*t)/2$
- none

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$Y(s)/R(s)=$

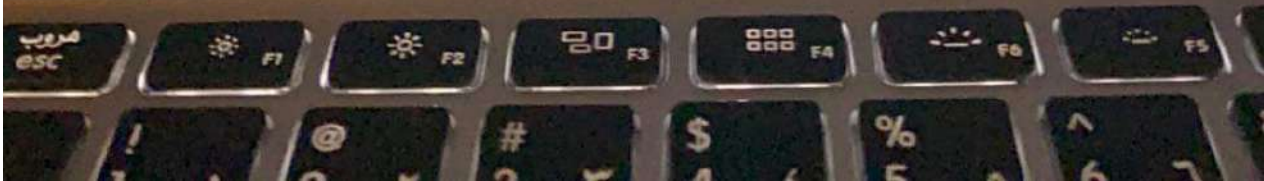
- a.  $FK1G/(1+FG+GK2)$
- b.  $FGK1+FGK2$
- c.  $(F+k1)G/(1+FG +GK2)$
- d.  $FGK1/FGK2$
- e.  $FK1/(1+FG+GK2)$

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1	2
4	5
7	8
10	11
13	14
16	17
19	20

Not  
Finish  
Time l





My courses

INDUSTRIAL CONTROL SYSTEMS

General

Quiz matlab arduino

matlab commands: `riocus(zpk([-1],[-3 0],1))` is related to the transfer function

- a.  $-s$
- b.  $s/s^3+s$
- c.  $(s+1)/(s(s+3))$
- d.  $(s-1)/(s(s-3))$
- e.  $-s/(-3s)$

Quiz



Finish a

Time left

C/D is  
(2/2)



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$$\left( \frac{12}{s+1} \right) + \left( \frac{s+1}{2} \right) + 1 \cdot \frac{1}{2}$$

$$\left( \frac{12}{s+1} \right) - \left( \frac{s+1}{2} \right) - 1 \cdot \frac{1}{2}$$

$$\left( 1 - \frac{2}{s+1} \right) - \left( \frac{2}{s+1} \right) / (s+1)$$

One equation describing the system is

$$Y_1(s)(A_1s^2 + A_2s + A_3) + A_4Y_2 = 0 \quad \text{then } A_1 \text{ is}$$

(نقطة 2)



.Vout



for the following system if  $R_{in} = 1 \text{ ohm}$  and  $R_f = 1 \text{ ohm}$   
..... = and  $V_{in} = 1 \text{ volt}$  then  $V_{out}$   
(نقطة 2)

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8

2

4

1

0.5

10. inverse laplace transform for  $1/(s(3s+1))$  \*  
(1 Point)

$3\exp(-3t)$

$\exp(-3t)/3$

$1 - \exp(-t/3)$

$\exp(-t)/3$

$3\exp(-t)$



C/D is (2/2)

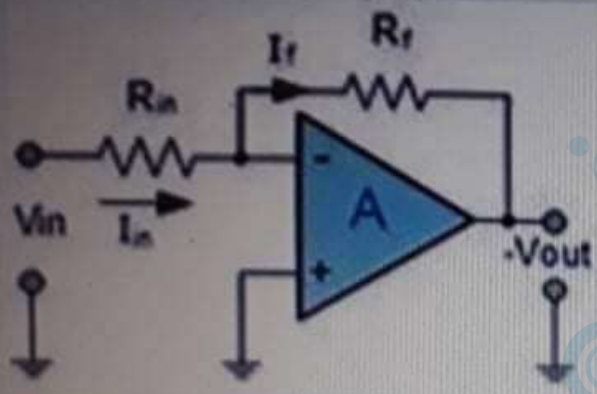


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$((12/(s+1)) + ((s+1)/2) + 1) / 2$

$((12/(s+1)) - ((s+1)/2) - 1) / 2$

$(1 - (2/(s+1)) - ((2/(s+1)) / (s+1)))$



for the following system if  $R_{in} = 1 \text{ ohm}$  and  $R_f = 8 \text{ ohm}$  ..... = and  $V_{in} = 1 \text{ volt}$  then  $V_{out}$  (2 نقطة)

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2 ○

4 ○



One equation describing the system is

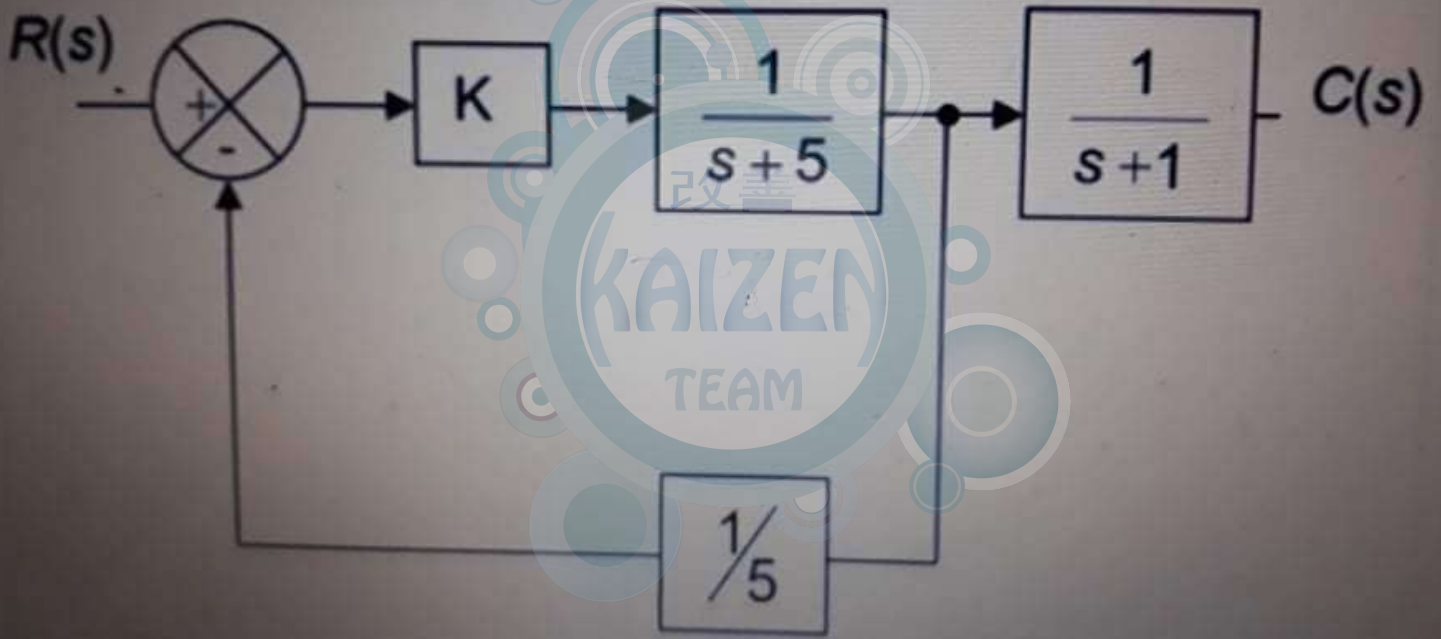
$$Y_1(s)(A_1s^2 + A_2s + A_3) + A_4Y_2 = 0 \text{ then } A_2 \text{ is}$$

(نقطة 2)





C/R is for the system  
(2 نقطة)



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$(5s+25+K)(s+1)/5$



Quiz navigation

1	2	3	4	5	6
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Finish attempt ...

Time left 0:08:52

The steady state error for input  $=5u(t)$  is

- a. 0.05
- b. 0.001
- c. 0.1
- d. 0.2
- e. 0

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1/2

6. The  $X'' + X = u(t)$ ;  $X'(0)=0$ ;  $X(0)=0$   $X(s) = *$   
(1 Point)

$1/(s^2(s^2+1))$

$1/s$

$1/(s^2+1)$

$1/(s^2(s+1))$

7. Question The inverse Laplace transform for  $1/(s^2+2s+1)^2$

One equation describing the system is

$$Y_1(s)(A_1s^2 + A_2s + A_3) + A_4Y_2 = 0 \quad \text{then } A_1 \text{ is}$$

(نقطة 2)

