Question 1 (10 points)

Veličinu T=1/|s| nazivamo:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. vremenski period
-50.0%			b. specifični period
100.0%	▶		c. vremenska konstanta
-50.0%			d. specifična konstanta

Score: 0 / 10 (*Question not answered.*)

Question 2 (10 points)

Veličinu T=2p/w nazivamo period sinusoide:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. točno
-50.0%			b. netočno

Score: 10 / 10

Question 3 (10 points)

Prebaci u donje područje: f"+3f'+2f=1+2exp(-3t)

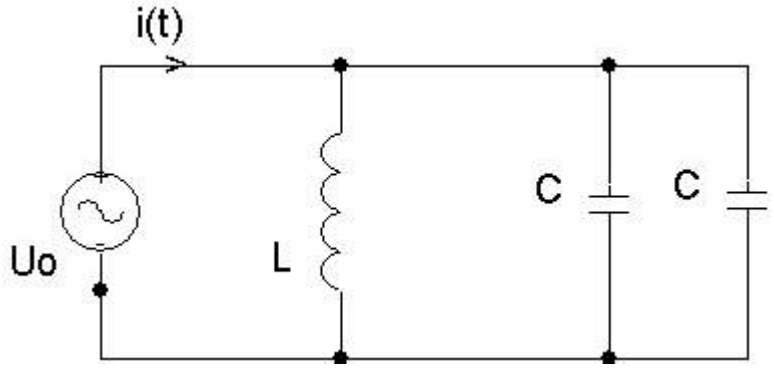
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. F(S)(s^3+3s^2+2s)=1+2/(s+3)
-50.0%			b. F(S)(s^2+2s-1)=1/s+2/(s+3)
-50.0%			c. F(S)(s^2+3s+2)=1+2/(s+3)
100.0%	▶	▶	d. F(S)(s^2+3s+2)=1/s+2/(s+3)

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=2/(2s^2+1), L=C=1, il(0)=uc(0)=0?



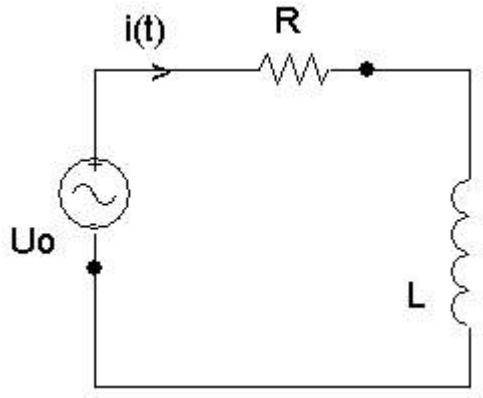
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. S(t)
-50.0%			b. δ(t)
-50.0%			c. t
100.0%			d. 2S(t)

Score: 0 / 10 (*Question not answered.*)

Question 5 (10 points)

Koliko iznosi I(s) ako je: Uo = 2/s, R=L=1, iL(0)=1.



Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. s(1+s)/(2+s)
100.0%			b. 1/s + 1/[s(1+s)]
-50.0%			c. 1/s

-50.0%			d.	1/(s+1)
-50.0%			e.	1/(s+2)

Score: 0 / 10 (*Question not answered.*)

Total score: **20 / 50** = **40.0%**

Question 1 (10 points)

Kompletan matematički opis nekog napona ili struje zahtijeva specifikaciju:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. u(t) za svaki t>0,odnosno i(t) za svaki t>0
-50.0%			b. u(t) za svaki t<0,odnosno i(t) za svaki t<0
-50.0%			c. u(t) za svaki t<0,odnosno i(t) za svaki t>0
-50.0%			d. u(t) za svaki t>0,odnosno i(t) za svaki t<0
100.0%	▶	▶	e. u(t) za svaki t,odnosno i(t) za svaki t

Score: 10 / 10

Question 2 (10 points)

Za jedinični skok S(t) vrijedi:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. jednak je 0 za t<0 i jednak je 1 za t>0
-50.0%			b. jednak je 0 za t>0 i jednak je 1 za t<0

Score: 10 / 10

Question 3 (10 points)

Prebaci u donje područje: t^2*S(t)

Student response:

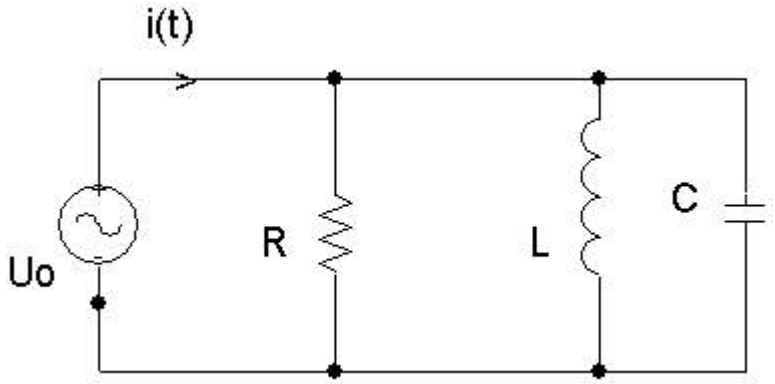
Percent Value	Correct Response	Student Response	Answer Choices

-50.0%			a.	1/s^2
100.0%	▶	▶	b.	2/s^3
-50.0%			c.	1/s^3
-50.0%			d.	s^2

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=1/(s^2+s+1), R=L=C=1, il(0)=uc(0)=0?



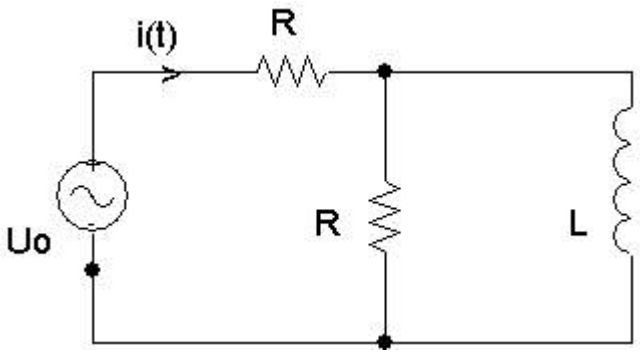
Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
-50.0%			a.	δ(t)
100.0%	▶	▶	b.	S(t)
-50.0%			c.	δ(t) + S(t)
-50.0%			d.	2S(t)

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi I(s) ako je: Uo=2/s, R=L=1, il(0)=0



Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. 2/s
-50.0%			b. 2 / (2s+1)
-50.0%			c. (1+s)/s
100.0%			d. 2(1+s) / [s (2s+1)]

Score: 10 / 10

Total score: **50 / 50** = **100.0%**

Question 1 (10 points)

Eksponencijalni valni oblik definiran je kao:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. f(t)=t K exp(sigma)
100.0%	▶	▶	b. f(t)=Kexp(sigma t)
-50.0%			c. f(t)=K sigma t
-50.0%			d. f(t)=K sigma

Score: 10 / 10

Question 2 (10 points)

Za r t (t)=r(t-t) vrijedi:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
0.0%			a. ako je t>0 onda r t prethodi dok u slučaju t<0 r t zaostaje
100.0%	▶	▶	b. ako je t>0 onda r t zaostaje dok u slučaju t<0 r t prethodi

Score: 10 / 10

Question 3 (10 points)

Rastavi na parcijalne razlomke: (2s+3)/(s^2+3s+2)

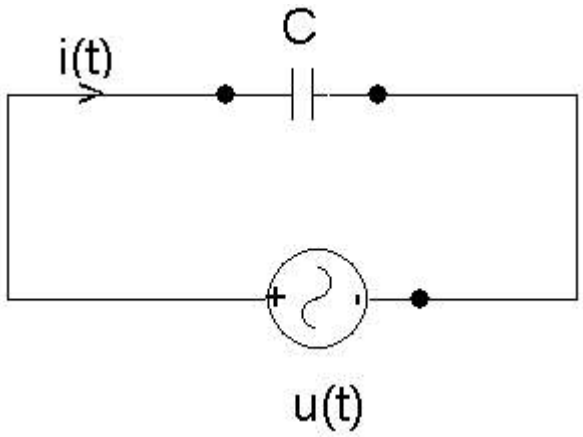
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. s/(s-3)+1/(s-2)
-50.0%			b. 2s/(s^2+3s)+3/2
100.0%	▶	▶	c. 1/(s+1)+1/(s+2)
-50.0%			d. 2/(s+3)+3/(s+2)

Score: 10 / 10

Question 4 (10 points)

Izračunati struju I(s) pomoću Laplaceove transformacije ako je zadano: uc(o)=1, C = 1, U(s)=2/s



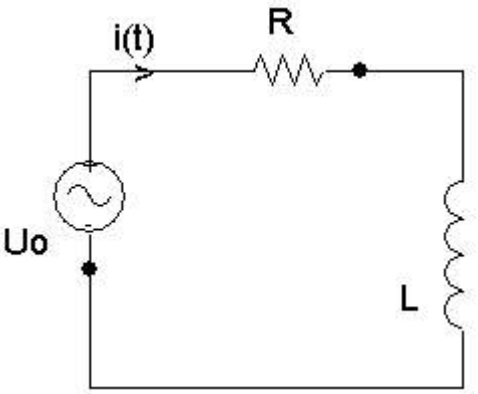
Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
-50.0%			a.	-1
-50.0%			b.	s-1
-50.0%			c.	1/s
100.0%			d.	1

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi i(t) ako je: Uo=2/s, L=C=1, iL(0)=uc(0)=1.



Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
100.0%	▶	▶	a.	sint + cost
-50.0%			b.	sint - cost
-50.0%			c.	cost - sint
-50.0%			d.	cost
-50.0%			e.	sint

Score: 10 / 10

Total score: **50 / 50 = 100.0%**

Question 1 (10 points)

Deriviranjem izraza za eksponencijalni valni oblik dobivamo isti valni oblik kao i prije deriviranja,osim razlike u mjerilu:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
100.0%	▶	▶	a.	točno
-50.0%			b.	netočno

Score: 10 / 10

Question 2 (10 points)

Uzastopnim deriviranjem jediničnog impulsa dobivaju se dublet,triplet,kvadruplet itd.:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
100.0%	▶	▶	a.	točno
-50.0%			b.	netočno

Score: 10 / 10

Question 3 (10 points)

Prebaci u donje područje: f"+3f'+2f=1+2exp(-3t)

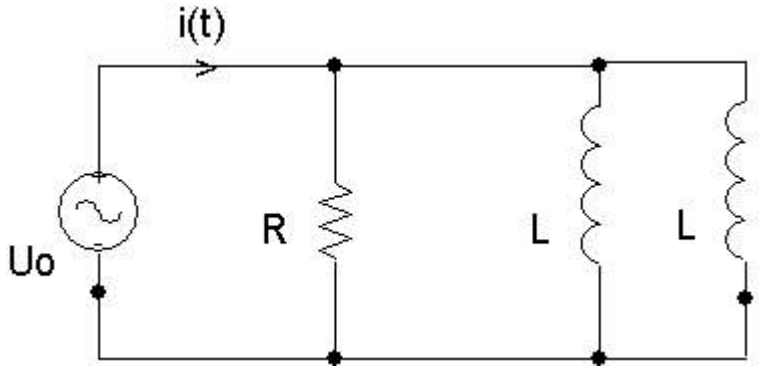
Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
-50.0%			a.	F(S)(s^3+3s^2+2s)=1+2/(s+3)
-50.0%			b.	F(S)(s^2+2s-1)=1/s+2/(s+3)
-50.0%			c.	F(S)(s^2+3s+2)=1+2/(s+3)
100.0%	▶	▶	d.	F(S)(s^2+3s+2)=1/s+2/(s+3)

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=2/(2+s), R=L=1, il(0)=0?



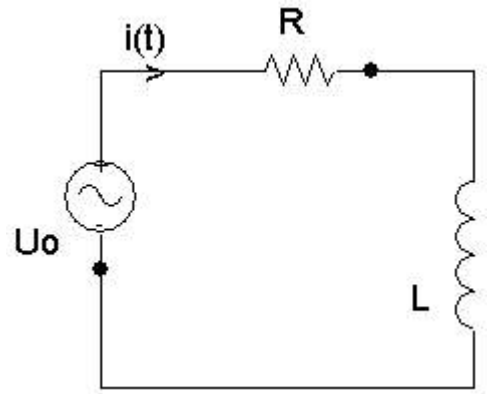
Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
-50.0%			a.	S(t)
100.0%	▶	▶	b.	2S(t)
-50.0%			c.	3S(t)
-50.0%			d.	δ(t)

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi i(t) ako je: Uo=2/s, L=C=1, iL(0)=uc(0)=1.



Student response:

Percent	Correct	Student	Answer Choices	
100.0%	▶	▶	a.	sint + cost
-50.0%			b.	sint - cost
-50.0%			c.	cost - sint
-50.0%			d.	cost
-50.0%			e.	sint

-50.0%	e. sint

Score: 10 / 10

Total score: **50 / 50** = **100.0%**

Question 1 (10 points)

Valni oblik izražen kosinusnom funkcijom može se izraziti i ekvivalentnom sinusnom funkcijom,ali s drukcijom frekvencijom:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. točno
100.0%	▶	▶	b. netočno

Score: 10 / 10

Question 2 (10 points)

Jedinični uspon je jednak 0 za t<0, a za t>0 jednak je t:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. točno
-50.0%			b. netočno

Score: 10 / 10

Question 3 (10 points)

Prebaci u gornje područje: 4/(s^2+4)

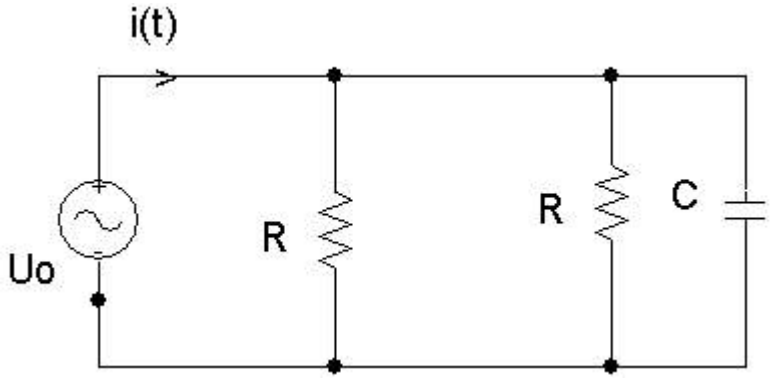
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. sin4t*S(t)
100.0%	▶	▶	b. 2sin2t*S(t)
-50.0%			c. cos2t*S(t)
-50.0%			d. 4exp(-2t)*S(t)

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=2/s, R=C=1, uc(0)=0?



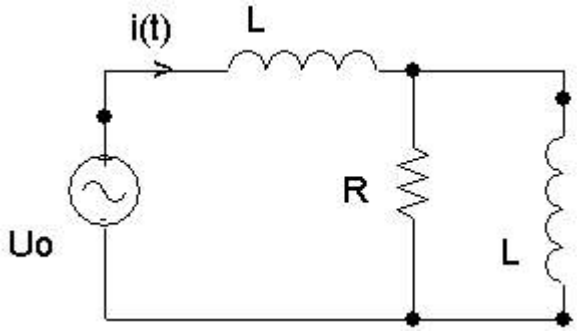
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. S(t) + δ(t)
100.0%	▶	▶	b. 2δ(t) + 4S(t)
-50.0%			c. 2S(t) + 4t
-50.0%			d. S(t) + t

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi I(s) ako je R=L=1, Uo=2/(s+1), il(0)=0 ?



Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. 2/(s+2)
-50.0%			b. 2/(s^2+s)
-50.0%			c. 1/(s^2+2s)
100.0%	▶	▶	d. 2/(s^2+2s)

Score:	10 / 10
Total score:	**50 / 50 = 100.0%**

Question 1 (10 points)

Eksponencijalni valni oblik je uz sigma je realan i negativan 1. ,uz sigma je realan i pozitivan 2. ,a uz sigma=0 3. :

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. 1.=opadajuća, 2.=rastuća, 3.=konstanta
0.0%			b. 1.=rastuća, 2.=opadajuća, 3.=konstanta
0.0%			c. 1.=opadajuća, 2.=rastuća, 3.=opadajuća
0.0%			d. 1.=opadajuća, 2.=rastuća, 3.=rastuća

Score: 10 / 10

Question 2 (10 points)

Za r t (t)=r(t-t) vrijedi:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
0.0%			a. ako je t>0 onda r t prethodi dok u slučaju t<0 r t zaostaje
100.0%	▶	▶	b. ako je t>0 onda r t zaostaje dok u slučaju t<0 r t prethodi

Score: 10 / 10

Question 3 (10 points)

Prebaci u donje područje: exp(-4t)cos3t

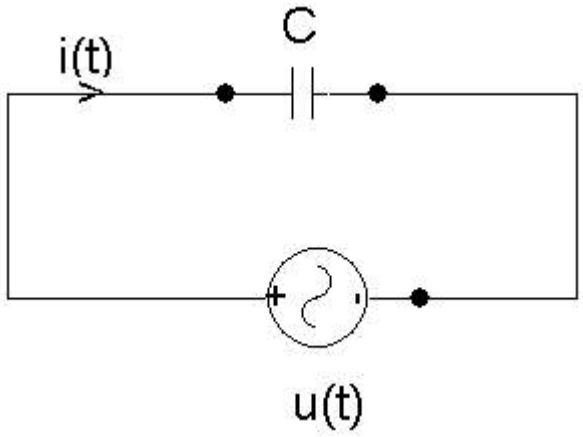
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. s/(s^2+9)
-50.0%			b. (s+4)/(s^2+9)
100.0%	▶	▶	c. (s+4)/((s+4)^2+9)
-50.0%			d. (s-4)/((s-4)^2+9)

Score: 10 / 10

Question 4 (10 points)

Izračunati struju I(s) pomoću Laplaceove transformacije ako je zadano: uc(o)=1, C = 1, U(s)=2/s



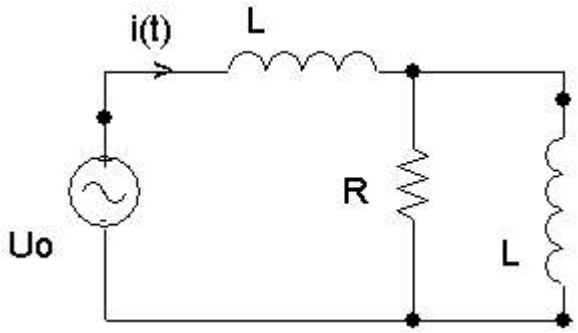
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. -1
-50.0%			b. s-1
-50.0%			c. 1/s
100.0%	▶	▶	d. 1

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi I(s) ako je R=L=1, Uo=2/(s+1), il(0)=0 ?



Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. 2/(s+2)
-50.0%			b. 2/(s^2+s)
-50.0%			c. 1/(s^2+2s)
100.0%			d. 2/(s^2+2s)

Score: 10 / 10

Total score: **50 / 50** = **100.0%**

Question 1 (10 points)

U izrazu f(t)=Acos(wt + f),A je amplituda , w je frekvencija,a f je period :

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. točno
100.0%	▶	▶	b. netočno

Score: 10 / 10

Question 2 (10 points)

Suma sinusoida koje nemaju iste frekvencije naziva se treptaj :

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. točno
-50.0%			b. netočno

Score: 10 / 10

Question 3 (10 points)

Rastavi na parcijalne razlomke: (2s^2-7s+3)/((s-2)^2*(s-1))

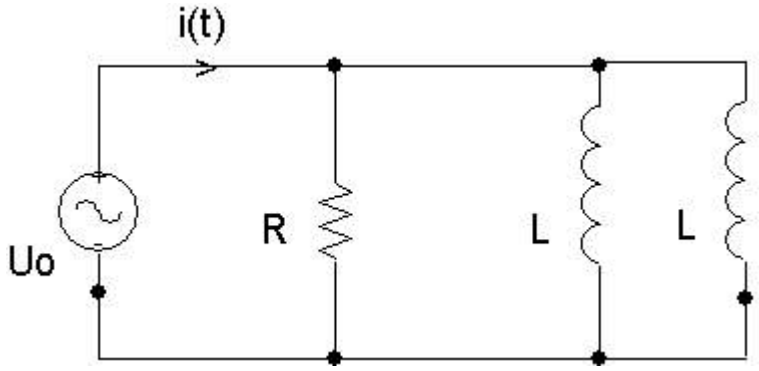
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. 1/(s-2)^2+2/(s-1)
-50.0%			b. 1/(s-2)-1/(s-2)^2+2/(s-1)
-50.0%			c. 1/(s^2-4s+2)-2/(s-1)
-50.0%			d. 1/(s-2)+2/(s-1)

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=2/(2+s), R=L=1, il(0)=0?



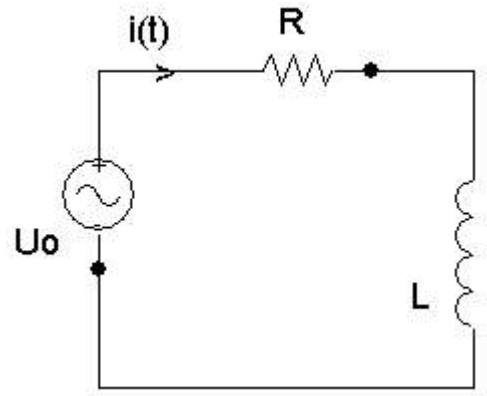
Student response:

Percent Value	Correct Response	Student Response	Answer Choices	
-50.0%			a.	S(t)
100.0%	▶	▶	b.	2S(t)
-50.0%			c.	3S(t)
-50.0%			d.	δ(t)

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi I(s) ako je: Uo = 2/s, R=L=1, iL(0)=1.



Student response:

Percent	Correct	Student	Answer Choices	
-50.0%			a.	s(1+s)/(2+s)
100.0%	▶	▶	b.	1/s + 1/[s(1+s)]
-50.0%			c.	1/s
-50.0%			d.	1/(s+1)
-50.0%			e.	1/(s+2)

-50.0%	e. 1/(s+2)

Score: 10 / 10

Total score: **50 / 50** = **100.0%**

Question 1 (10 points)

Deriviranjem izraza za eksponencijalni valni oblik dobivamo isti valni oblik kao i prije deriviranja,osim razlike u mjerilu:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
100.0%	▶	▶	a. točno
-50.0%			b. netočno

Score: 10 / 10

Question 2 (10 points)

Jedinični impuls je aproksimacija za:

Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. za impuls kratkog trajanja i male veličine
100.0%	▶	▶	b. za impuls kratkog trajanja i velike veličine
-50.0%			c. za impuls dugog trajanja i male veličine
-50.0%			d. za impuls dugog trajanja i velike veličine

Score: 10 / 10

Question 3 (10 points)

Prebaci u gornje područje: s^3(F(s)-5/s-7/s^2-6/s^3)

Student response:

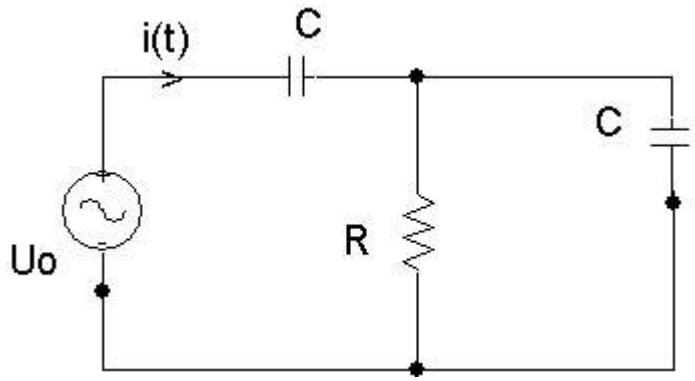
Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. t^3*f(t)*exp(-5t)*exp(-7t)*exp(-6t)

-50.0%			b.	t^2*f'''(t)-5t*f''(t)-7f'(t)-6f(t)
100.0%	▶	▶	c.	f'''(t), f(0)=5, f'(0)=7, f''(0)=6
-50.0%			d.	f(t)-5S(t)-7t*S(t)-6t^2*S(t)

Score: 10 / 10

Question 4 (10 points)

Koliko iznosi i(t) ako je Uo(s)=2/s, R=C=1, uc(0)=0?



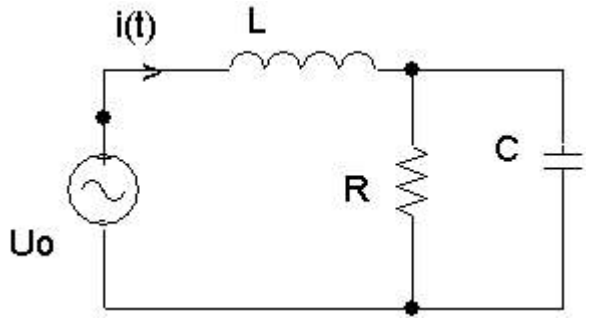
Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. e^(-0.5t)
-50.0%			b. δ(t)
-50.0%			c. S(t)
100.0%	▶	▶	d. δ(t) + 0.5 e^(-0.5t)

Score: 10 / 10

Question 5 (10 points)

Koliko iznosi I(s) ako je: Uo=2/s, R=L=C=1, il(0)=uc(0)=0



Student response:

Percent Value	Correct Response	Student Response	Answer Choices
-50.0%			a. 2/s
-50.0%			b. s+1/s
100.0%	▶	▶	c. 2(s+1) / [s (s^2+s+1)]
-50.0%			d. (s+1) / (s^2+s+1)

Score: 10 / 10

Total score: **50 / 50** = **100.0%**