

# Elektronik för D

## Övning 10

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### Svar<sup>1</sup>

**P4.33**  $i(t) = 1 - e^{-2tR/L} = 1 - e^{-20t}$ ,  $t \geq 0$ ,  
 $i(t) = 0$ ,  $t < 0$ .

**P4.34**  $i_L = 0.3 - 0.5e^{-tR/L}$ ,  $t \geq 0$ .  
 $v = 0.5Re^{-tR/L}$ ,  $t \geq 0$ .

**P4.45**  $i(t) = -e^{-t} + e^{-tR/L}$ ,  $t \geq 0$ .

**P4.46**  $v_c = 10^6e^{-t} - 10^6e^{-3t}$

**P4.47**  $v(t) = 25e^{-tR/L} + 25 \cos(10t) - 25 \sin(10t)$ ,  $t \geq 0$ .

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<sup>1</sup>Med reservation för eventuella tryckfel