$$\frac{1}{36\sqrt{6}}\sqrt{2}$$

$$\frac{1}{36\sqrt{6}$$

$$Z_{L} \rightarrow \frac{1}{142} \frac{1}{422} \qquad Z_{L} = \frac{1-j4}{14} \frac{1}{(4+j4)} = 4-j4$$

$$48 \left( \frac{0}{0} \right)^{\frac{25}{120}} = \frac{2}{10} \left( \frac{1}{3} \right)^{\frac{25}{120}} = \frac{2}{10} \left( \frac{3}{10} \right)^{\frac{25}{10}} = \frac{2}{10} \left( \frac{3}{$$

$$V_{2} = \frac{1}{3} \times V_{1} = \frac{288}{19}$$

$$V_2 = \frac{1}{3} \times V_1 = \frac{288}{19}$$

$$V_0 = v_3 \times \frac{4}{4+j4} = 1.519 - j 1.519 = 10.118 (-45° V)$$

$$t < 0$$
:  $1(0^{-}) = \frac{30}{10} = 3A$ ,  $V_{c}(0^{-}) = 5 \times 3 - 10 = 5V$ 

$$(3+\frac{10}{5}+\frac{5}{5})=I(5)(10+5+\frac{25}{5})$$

$$T(5) = \frac{3(5+5)}{(5+5)^2} = \frac{3}{(5+5)}$$

$$|\{I(5)\}|^2 = \lambda(t) = 3e^{-5t}$$
 u(t)

3. 
$$I_{x}(s) = V_{y}$$
 $V_{x} = V_{y}$ 
 $V_{y} = V_{y}$ 

$$I_{y} = I_{x(5)} + \frac{V_{y}}{\sqrt{0}} + \frac{V_{y} - 4V_{y}}{\sqrt{0}} = I_{x(5)} + \frac{V_{y}}{\sqrt{0}} - 65 V_{y}$$

= 4Iy = 3IxLS) +605 IxLS) = (3+605) [x(s)

 $To(5) = \frac{\overline{5(605+3)}}{\frac{-10}{600(+2)} + 10} = \frac{1}{5(605+2)} = \frac{1}{5(5+\frac{1}{30})}$ 

 $i_0(t) = \left(\frac{1}{2} - \frac{1}{2}e^{\frac{1}{2}t}\right) u(t) A$ 

 $I_6(5) = \frac{1}{5(5+\frac{1}{50})} = \frac{\frac{1}{5}}{5} - \frac{\frac{1}{5}}{5+\frac{1}{5}}$ 

 $\Rightarrow Z_{TH} = \frac{V_y}{I_y} = \frac{-\frac{10}{4}I_x(s)}{\frac{(3+605)}{6}I_x(s)} = \frac{-10}{605+3}$ 

$$I_{y} = I_{x}(s) + \frac{V_{y}}{t_{0}} + \frac{V_{y} - 4V_{y}}{\frac{1}{2s}} = I_{x}$$

$$= I_{x}(s) + \frac{1}{s} \left( -\frac{10}{5} I_{x}(s) \right) - 6S$$

$$y = I_{x(5)} + \frac{v_{y}}{v_{0}} + \frac{v_{y} - v_{y}}{\frac{1}{25}} = I_{x(5)}$$

$$= I_{x(5)} + \frac{1}{10} \left( -\frac{10}{4} I_{x(5)} \right) - 62$$

$$= I_{x}(s) + \frac{v_{y}}{c_{0}} + \frac{v_{y} - v_{y}}{\frac{1}{2}s} = I_{x}$$

$$= I_{x}(s) + \frac{1}{c_{0}} \left( -\frac{c_{0}}{4} I_{x}(s) \right) - 6s$$

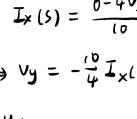
$$= I_{x}(s) + \frac{v_{y}}{t_{0}} + \frac{v_{y} - v_{y}}{\frac{1}{2}s} = I_{x}(s) + \frac{v_{y}}{t_{0}} - I_{x}(s) + \frac{v_{y}}{t_{0}} - I_{x}(s) + \frac{v_{y}}{t_{0}} - I_{x}(s) + \frac{v_{y}}{t_{0}} + \frac{v_{y}}{t_{0}} - I_{x}(s) + \frac{v_{y}}{t_{0}} + \frac{v_{y}}{t_{0}} - I_{x}(s)$$

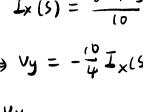
$$= I_{x}(s) + \frac{v_{y}}{t_{0}} + \frac{v_{y} - v_{y}}{\frac{1}{2}s} = I_{x}$$

$$= I_{x}(s) + \frac{1}{t_{0}} \left( -\frac{t_{0}}{4} I_{x}(s) \right) - 65$$

$$\frac{\sqrt{y}}{\sqrt{0}} + \frac{\sqrt{y} - 4\sqrt{y}}{\frac{1}{2\sqrt{5}}} = Ix$$

$$\frac{y_{y}-\psi y_{y}}{\frac{1}{2}}=\mathbf{I}_{x}($$





 $\Rightarrow v_y = -\frac{10}{4}I_x(5)$ 

4, t<0

$$V_{x} = (\frac{24}{3} + \frac{12}{3}) \times (3/13/16) = (2 \times 1.2 = 14.4 \text{V})$$

$$\tilde{\Lambda}_{L}(\bar{0}) = \frac{24 - 14.4}{3} = 3.2 A$$

$$\frac{v_{y}-\frac{3}{5}^{2}}{25}+\frac{v_{y}-\frac{1}{3}}{3}+\frac{v_{y}}{6}=0$$

 $v_{3}(\frac{1}{2s} + \frac{1}{2}) = \frac{16}{55} + \frac{4}{5}$   $v_{3}(s+1) = \frac{92}{5}$ 

$$V_{3}(s+1) = \frac{\eta_{2}}{5}$$

$$V_{3} = \frac{\frac{\eta_{2}}{5}}{5+1}$$

$$V_0 = \frac{1}{5}Vy = \frac{48}{5+1} = (48e^{-t}) u(t) V$$

$$20 \left[\log 0.1 + \log \left|1 + \frac{j\omega}{0.5}\right| - \log \left|j\omega\right| - \log \left|1 + \frac{j\omega}{10}\right| - \log \left|1 + \frac{j\omega}{100}\right|\right]$$

$$(AB)$$

$$20 \left[\log 0.1 + \log \left|1 + \frac{j\omega}{0.5}\right| - \log \left|j\omega\right| - \log \left|1 + \frac{j\omega}{10}\right| - \log \left|1 + \frac{j\omega}{100}\right|\right]$$

$$-20 \left[\log 0.1 + \log \left|1 + \frac{j\omega}{0.5}\right| - \log \left|1 + \frac{j\omega}{100}\right|\right]$$

$$-20 \left[\log 0.1 + \log \left|1 + \frac{j\omega}{0.5}\right| - \log \left|1 + \frac{j\omega}{100}\right|\right]$$