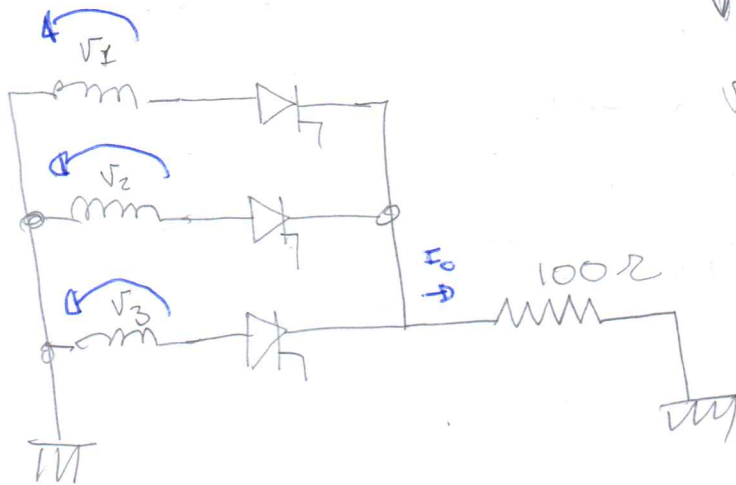


3.)



$$V_e = \sqrt{3} 500$$

$$V_{rms} = 500$$

$$d = \frac{\pi}{3}$$

$$I_{\frac{\pi}{3}} = 4,33 \text{ Amp}$$

puremente resistivo

$$I_o = \frac{V_{\text{oméd.}}}{R}$$

$$= 2,9323 \text{ A}$$

$$FP = 0,9837$$

$$I_{\text{rms}} = 2,9722 \text{ A}$$

d) $V_o(\theta) = 500 \sin(\theta)$

$$V_{\text{oméd.}} = \frac{1 \times 3}{2\pi} \int_{\frac{\pi}{2}}^{\pi} 500 \sin(\theta) d\theta$$

$$=$$

e) $\left\{ \begin{array}{l} FP \text{ por fase} \times 3 \\ FP \text{ pela carga} \end{array} \right.$

$$FP = \frac{P}{S}$$

$$S = V_{1rms} \times I_{1rms} \times 3$$

$\left\{ \begin{array}{l} P - \text{na fase} \times 3 \\ \text{ou} \\ P - \text{na carga} \end{array} \right.$

$P = R I_{\text{rms}}^2$

$P_R = \frac{1}{2\pi} \int_0^{2\pi} V_o(\theta) \cdot I_o(\theta) d\theta$

$V_{1rms} = \frac{500}{\sqrt{2}}$

$I_{1rms} = I_{T3}$

$I_{1rms} = \sqrt{\frac{1}{2\pi} \int_0^{2\pi} [I_1(\theta)]^2 d\theta}$

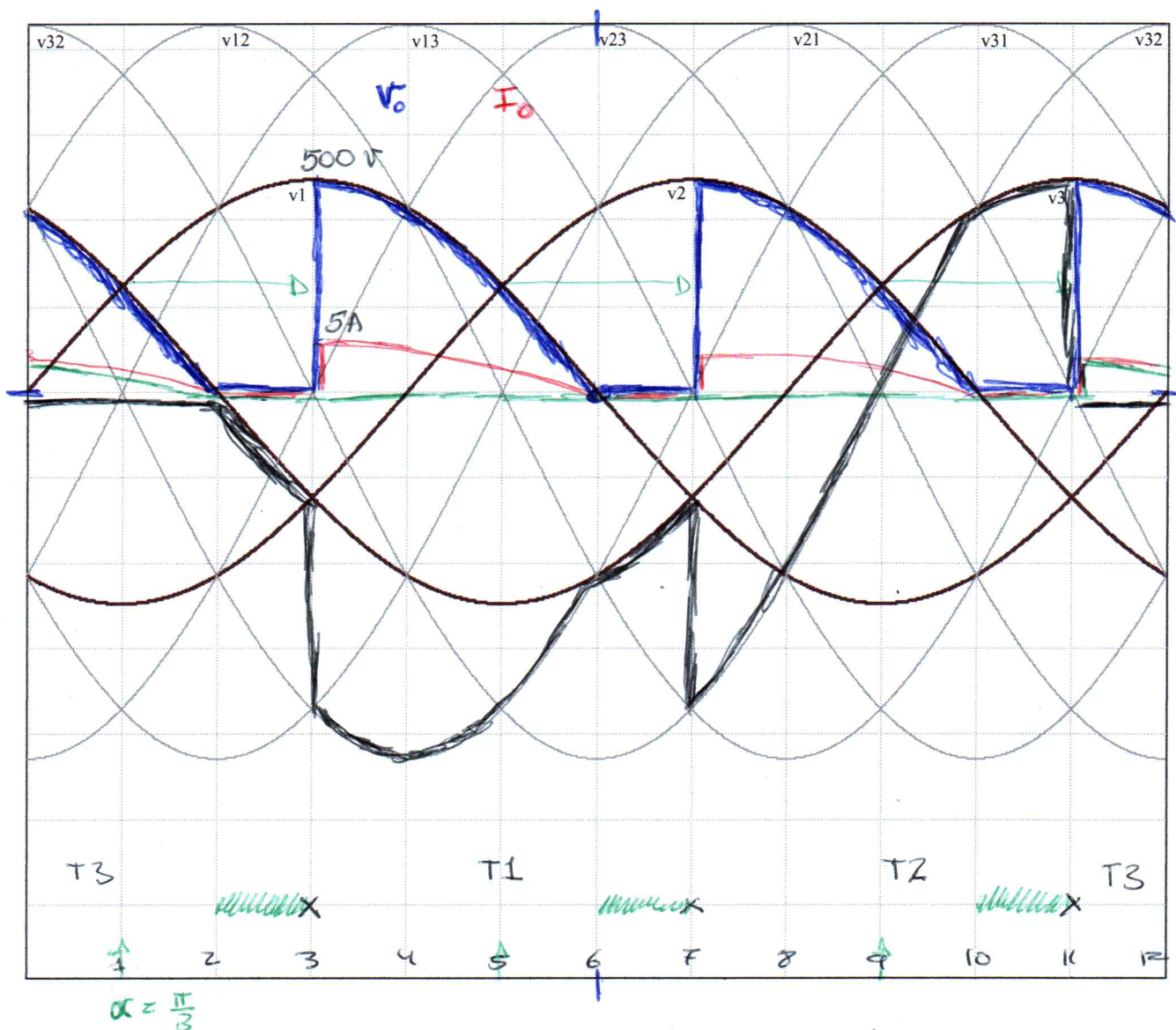
$= \sqrt{\frac{1}{2\pi} \int_{\frac{\pi}{2}}^{\pi} \left(\frac{500 \sin(\theta)}{R} \right)^2 d\theta}$

3)

Exam

20 Jan 2020

4

Nome: Sergio SandozNúmero: 1020881

$$\alpha = \frac{\pi}{3}$$

$$I_{T3}$$

$$V_{T3}$$

$$\begin{aligned} V_{T3on} &\neq 0 \\ I &= 0 \Rightarrow V_3 \end{aligned}$$

a)

b)

c)

$$1000V / 20A \checkmark$$

$$V_{pc} = \sqrt{3} 500$$

$$V_{ps} = 500V$$

$$I_{omax} = 5A$$

$$T2on \Rightarrow V_{12}$$

$$T3on \Rightarrow V_{13}$$

$$T1on \Rightarrow 0$$

$$T3on \Rightarrow 0$$

$$T2on \Rightarrow V_{32}$$

$$T1on \Rightarrow V_{31}$$