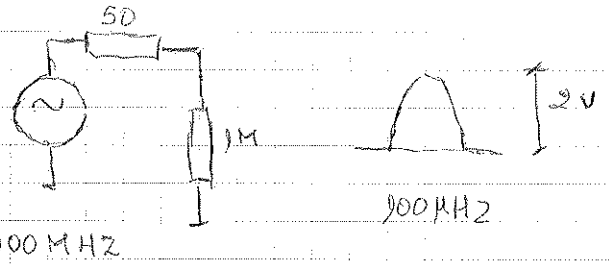
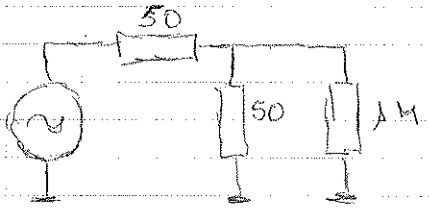
1)



a) $50 << 1M\Omega$ $Z_t = 0.C.$

Amplitud 2V. $V_{pp} = 2V \cdot 2 = 4V$

b)

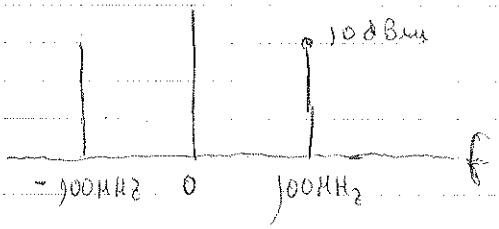


$1 \| (50 + 1M) \simeq 50\Omega$

Divisor V $50+50$ $V_{osc.} = \frac{V}{2} = \frac{2}{2} = 1$

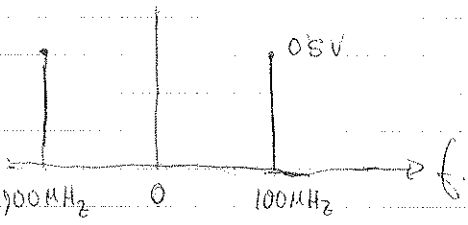
Amplitud = 1V $V_{pp} = 1V \cdot 2 = 2V.$

c)



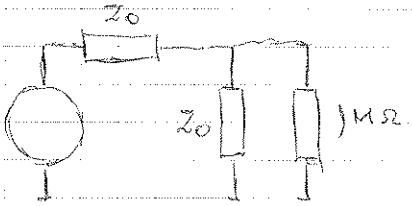
$P(t) = \frac{V^2}{2R} = \frac{1}{2 \cdot 50} = \frac{1}{100} = 0'01\ W \Rightarrow a\,dB\ 10\log 10mW = 10\,dBm.$

d)



$V = \frac{Amplitud}{2} = 0'5V.$

2)



$v(t) = V_p(1 + m\cos 2\pi f_m t)\cos(2\pi f_p t)V.$

$f_p >> f_m$

a)