2) 3-23 Compute the oscillation frequencies, periods and amplitude after 2 periods (as a fraction of A_0) for the circuit shown for L = 0.01 H, C = 10 μF, and R = 10 Ω.

L =	0.01 H			
C =	10.0 μF	=	0.00001 F	
R =	10.0 Ω			

ω_N =	$\sqrt{(1/CL)}$ =	3162.2777	s^{-1}
ν_N =	$\omega_N/2\pi$ =	503.29	Hz
τ_N =	$1/\nu_N$ =	1.987E-03	s
β =	R/2L =	500	s^{-1}
ω_S =	$\sqrt{[(\omega_N)^2 - \beta^2]}$ =	3122.499	s^{-1}
ν_S =	$\omega_S/2\pi$ =	496.96	
τ_S =	$1/\nu_S$ =	2.012E-03	

$2*\beta*\tau_S$ = 2.01

$A(2\tau_S) = A_0 e^{-2\beta\tau S}$ = 0.1336902 A_0

$x(t) = e^{-500\,t}\,Cos(3122.5\,t)$