

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Partner: \_\_\_\_\_

Part 1) Value of your capacitor:  $C =$  \_\_\_\_\_ nF  
Value of your resistor:  $R =$  \_\_\_\_\_  $\Omega$  measured  
Amplitude of your function generator:  $V_0 =$  \_\_\_\_\_ V from scope  
Time constant of circuit:  $\tau =$  \_\_\_\_\_ ms calculated

Part 2) Frequency of your function generator:  $f =$  \_\_\_\_\_ kHz from scope  
Period of your function generator:  $T =$  \_\_\_\_\_ ms calculated  
Expected time ratio from manual:  $T/\tau =$  \_\_\_\_\_ (it's not ten!)  
Actual time ratio:  $T/\tau =$  \_\_\_\_\_ calculated

Part 3) Scope setting:  $vertical =$  \_\_\_\_\_ volts/div  
Scope setting:  $horizontal =$  \_\_\_\_\_ ms/div  
Amplitude cursors:  $V_{pp} =$  \_\_\_\_\_ V  
Time cursors: time when  $V = V_{pp}/e$   $\tau =$  \_\_\_\_\_ ms from scope

Part 4) New value set for capacitor:  $C =$  \_\_\_\_\_ nF calculated  
New time constant of circuit:  $\tau =$  \_\_\_\_\_ ms  
New frequency of function generator:  $f =$  \_\_\_\_\_ kHz from scope  
Log plot in Excel:  $\tau =$  \_\_\_\_\_ ms from linest

Part 5) New frequency of your function generator:  $f =$  \_\_\_\_\_ kHz  
New time constant of circuit:  $\tau =$  \_\_\_\_\_ ms  
Apparent resistance:  $R =$  \_\_\_\_\_  $\Omega$

Part 6) Test capacitance:  $C =$  \_\_\_\_\_ nF   
\_\_\_\_\_ nF