A RC circuit like the one shown here was constructed in the last lab. A digital oscilloscope was used to measure the input voltage $v_i(t)$ and the output voltage $v_o(t)$. A hardcopy of the scope display is shown on the back. Based on this scope display, answer the following questions:

1. What input voltage would the DMM read on the DC scale? $V_{iDC} =$ ________

2. What input voltage would the DMM read on the AC scale? $V_{iAC} =$ ________

3. Calculate the effective (true RMS) value of the input voltage? $V_{IEFF} =$ ________

4. What output voltage would the DMM read on the DC scale? $V_{oDC} =$ ________

5. What output voltage would the DMM read on the AC scale? $V_{oAC} =$ ________

6. What is the frequency of the voltage in Hertz? $f =$ ________

7. What is the phase shift of the output voltage in degrees? $\Theta =$ ________

8. Does the output voltage lead or lag the input voltage (circle one)? LEAD    LAG

9. What is the value of the capacitor C used here if $R = 20 \, k\Omega$? $C =$ ________

10. What is the DC voltage stored on the capacitor? $V_C =$ ________
Oscilloscope Display:
1) Input Voltage (Channel 1)
2) Output Voltage (Channel 2)