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)