**ECE232**

**Lab 3**

**Miscellaneous OPMAP circuits II**

1. The circuit below is used as **a square wave oscillator.** Resistors R2 and R4 should be adjusted to tune the amplitude and frequency of the **square wave oscillations** observed over the resistor R4. The circuit components are C = 1 μFarad, R1 = 2.2 kOhm, R3 = 1 kOhm, Rf = 0.5 kOhm, **R2= 10 kOhm potentiometer**, **R4 = 1kOhm potentiometer**.



1. Connect the channels of the oscilloscope (CHI and CHII) as shown in the circuit diagram above. CHI will give the charging and discharging behavior of the capacitor whereas CHII will show the square wave obtained as the output of the oscillator. Adjust the potentiometers R2 and R4 such that Vo(t) is obtained as a square having a frequency of 500 Hertz and a peak amplitude of 2 Volt (4 Volt peak-to-peak value). When these requirements are reached draw Vo(t) (CHII) and Vc(t) (CHI).

**ChI (Vc(t)): 1 Volt/Div (DC mode)**

**ChII (Vo(t)): 1Volt/Div (DC mode)**

**Second/Div: 1msec/Div**



1. Disconnect the adjusted potentiometers R2 and R4 from the circuit and now measure their resistance values

R2=

R4=