

(b) In the wein bridge oscillator $R_1 = R_2 = 200K\Omega$ and $C_1 = C_2 = 200PF$. Calculate the frequency of oscillations.

4

(c) Write short note on Schmitt Trigger.

5

OR

5 (a) A crystal has the following parameters :

$$L = 0.33H, C = 0.065PF,$$

$$C' = 1.0PF \text{ and } R = 5.5K\Omega$$

(i) Find the f_{se} .

(ii) By what percent does the parallel resonant frequency (f_{sh}) exceed the series resonant frequency (f_{se}) ?

(iii) Find the 'Q' of the Crystal.

7

(b) Give the two Barkhausen Condition required in order for Sinosuidal Oscillations to be Sustained.

5

(c) Explain circuit of crystal controlled oscillator.

4

