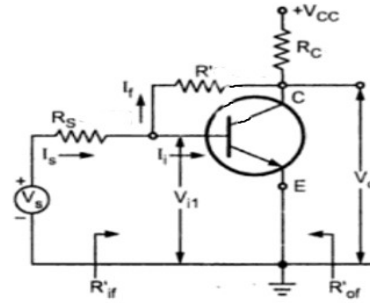


- (b) The circuit shown below has the following parameters $R_c=2K\Omega$, $R' = 20K\Omega$, $R_s=5K\Omega$, $h_{ie}=2.2K\Omega$, $h_{fe}=100$, and $h_{oe}=0$. Find R_{Mf} , A_{Vf} , R_{if} and R'_{of} .



14. (a) Construct a Transistorized Colpitt's oscillator and derive it's frequency of oscillations and gain. (14) 4 4

(OR)

- (b) Construct a Transistorized Hartley oscillator and derive it's frequency of oscillations and gain. (14) 4 4

15. (a) Explain the functioning of a capacitor coupled single tuned amplifier. With the high frequency transistor model, carry out an analysis and obtain the gain and bandwidth of the amplifier. Plot its frequency response. (14) 5 2

(OR)

- (b) (i) Explain the working of stagger tuned amplifiers with appropriate derivations. (7) 5 2
 (ii) Explain the instability of tuned amplifiers and explain any one technique for stabilization. (7) 5 2

PART- C (1x 10=10Marks)

(Q.No.16 is compulsory)

	Marks	CO	RBT LEVEL
16. Draw the circuit of RC phase shift oscillator. With $R = 6 K\Omega$, $C= 1500pF$ and $R_c = 18 K\Omega$, Obtain its operating frequency.	(10)	4	5
