Nominal:	Actual:
K 1 kΩ	0.98595 kΩ
U 1 kΩ	0.97947 kΩ
3 kΩ	2.9740 kΩ
20 kΩ	9.8860 kΩ
600 Ω	624.80 Ω
100 Ω	99.445 Ω
10 mH	9.994 mH
0.1 μF	0.09562 μF
R 20 nF	9.640 nF
U 10 nF	9.652 nF
K 10 nF	9.512 nF
Gr 10 nF	9.425 nF
~~47~~ nF	32.95 nF
Subs 33 nF	
1 nF	0.9830 nF

$$Z_{Th} = 1000 + j(10^{-2} \cdot 10^{4} \cdot 2\pi)$$
$$= 2000 + j628.32\ \Omega$$

$$Z_{Load} = 2000 - j628.32\ \Omega$$

$$R_{Load} = 2000\ \Omega$$

$$C_{Load} = \left(628.32 = \frac{1}{\omega C}\right)$$

$$= 25.33\ nF$$

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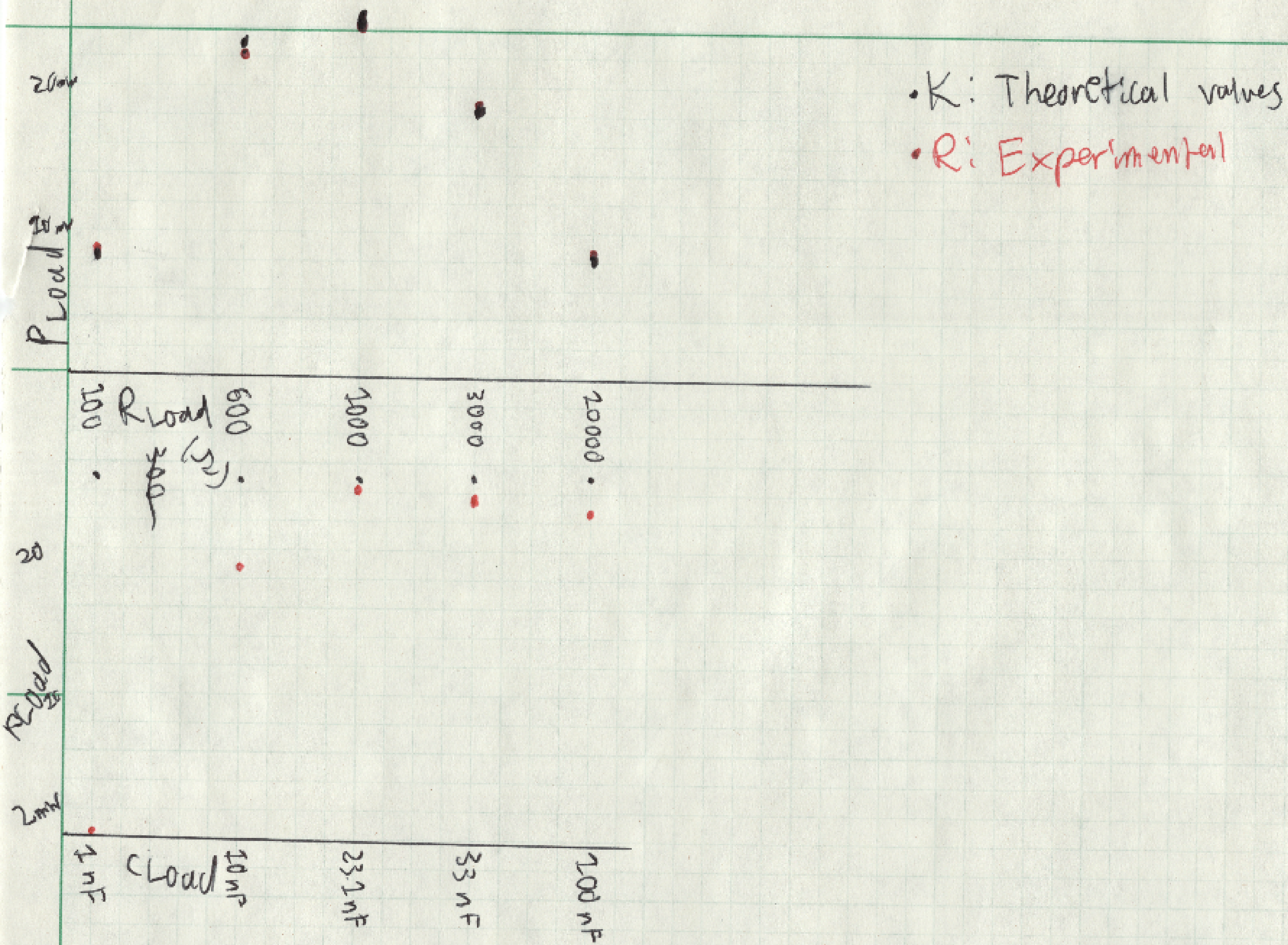
R_{Load} Ω	$V_{load\ theory}$ (mag) (V)	$V_{Load\ Exp}$ (mag) (V)	$P_{Load\ theory}$ (mW)	$P_{Load\ Exp}$ (mW)
200	0.909	0.9123	~~0.008~~ 8.26	8.37
600	3.75	3.708	~~0.02~~ 23.4	22.36
U2000U	5	~~3.530~~ 4.900	25	24.51
3000	7.5	7.503	28.75	28.93
10000	9.091	9.227	8.264	8.612

~~f~~load				
1 nF	5	~~4.345~~ ~~0.08482~~ 0.7577	25	0.574
20 nF Gr	5	~~0.05551~~ 4.345	25	18.88
-23.07 RVK	5	4.900	25	24.01
- 33 nF	5	4.888	25	23.89
0.1 mF	5	4.781	25	22.86

Q2) The complex conjugate of the source impedance will yield the max. power transfer.

2) The load voltages may change due to changing reactance, but the general trend will remain the same.



20mV
10 mV
P_{Load}
R_{Load} (Ω)
100
600
1000
3000
20000
20
2mV
C_{Load}
1 nF
10 nF
23.1 nF
33 nF
100 nF
•K: Theoretical values
•R: Experimental