Discussion and Conclusion:

~~The~~ Overall the experimental values obtained were relatively close to the theoretical values. Slight discrepancies may be caused by using capacitors and inductors that are not operating ideally. In addition, the values indicated on the apparatus may not be the exact, precise value of the capacitors, resistors and inductors used. Hence there were ~~some~~ slight differences in theoretical and experimented values. For step 6.2a, we were limited by the ~~maximum~~ capacitance values which we could obtain using the electrical apparatus available in the laboratory. We had to use a capacitance value of 88 ~~+~~ μF instead of 92.2 μF as calculated in order to ~~determine~~ obtain the measurements. Hence a larger power factor and reactive power values were obtained when theoretically the values of power factor and reactive power obtained should be 1 and 0 respectively. In conclusion, this experiment has met the objectives of allowing me to familiarize myself with the concept of complex power, power factor and powerfactor correction through carrying out experiments to obtain measurements which are approximately the same as ~~the~~ values from theoretical calculations. ~~The~~ My experiment has also shown the real life applications of capacitors and inductors in power factor correction so as to help reduce power loss, due to ~~cost~~ reactive power ~~and~~ produced or consumed.

Thx Jim