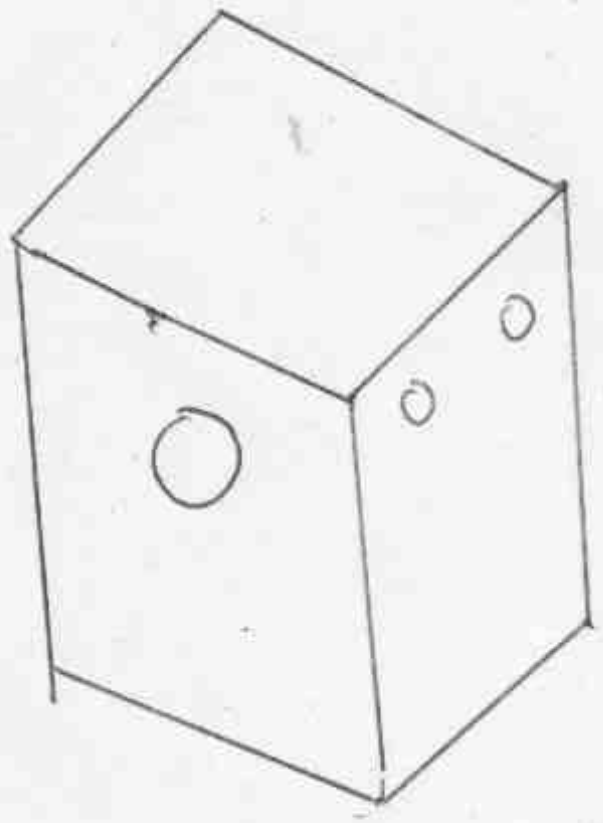
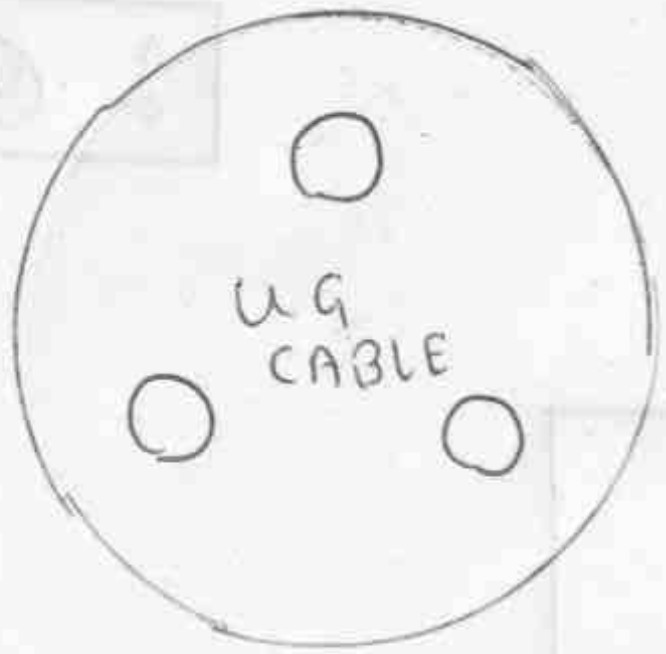
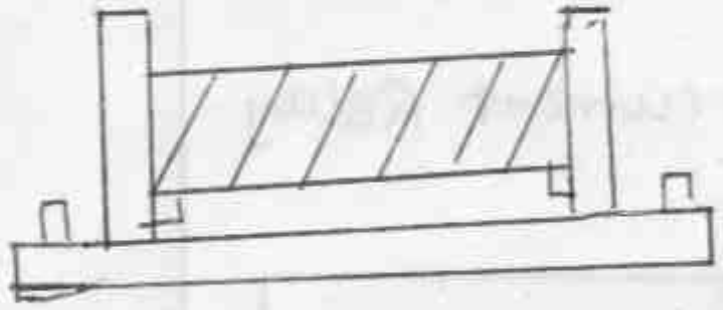
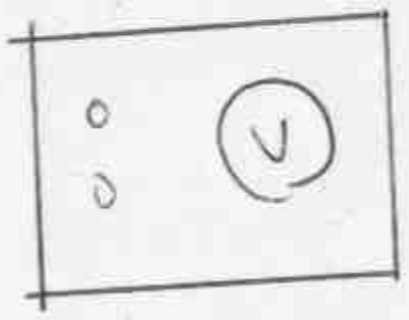


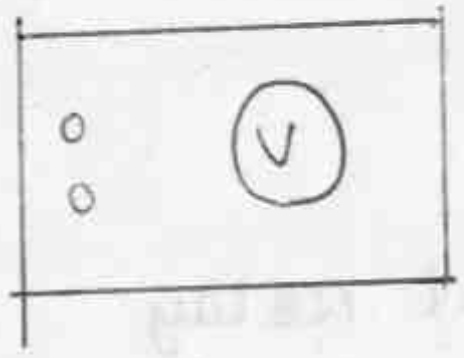
VARIC





RESISTOR





④/⑧ U.G CABLE CAPACITANCE TEST.

ELECTRICAL DISTRIBUTION PRACTICAL (4)

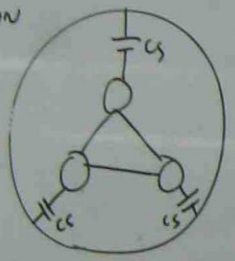
UNDERGROUND CABLE CAPACITANCE TEST

UG CABLE

C_c = CAPACITANCE BETWEEN CONDUCTORS

C_s = CAPACITANCE BETWEEN CONDUCTOR & SHEATH

(1) STUDY THE GIVEN CALCULATION



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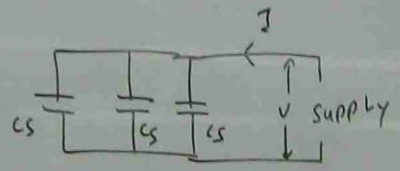


$$X_{c_1} = \frac{U}{I}$$

$$3C_s = \frac{1}{2\pi f X_{c_1}}$$

$$C_s = \frac{1}{3 \times 2\pi f X_{c_1}}$$

APPLY $U_1 = 80V$, SET RHEOSTAT = 20Ω

MEASURE V_2

$$V = U_1 - U_2$$

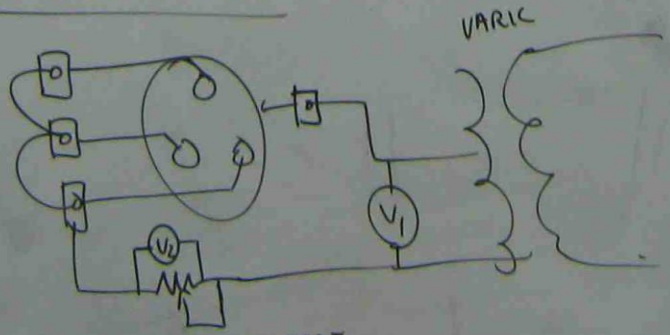
$$I = \frac{U_2}{\text{Rheostat } (R)}$$

$$X_{c_1} = \frac{U_1 - U_2}{\frac{U_2}{\text{Rheostat } (R)}}$$

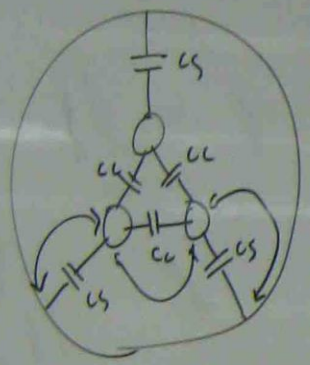
$$C_s = \frac{1}{3 \times 2\pi f X_{c_1}}$$

$$= \quad \mu f$$

(2) CONNECT THE GIVEN CIRCUIT



(3) STUDY THE GIVEN CALCULATION



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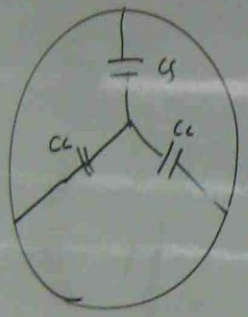

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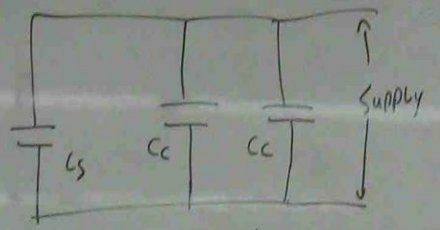
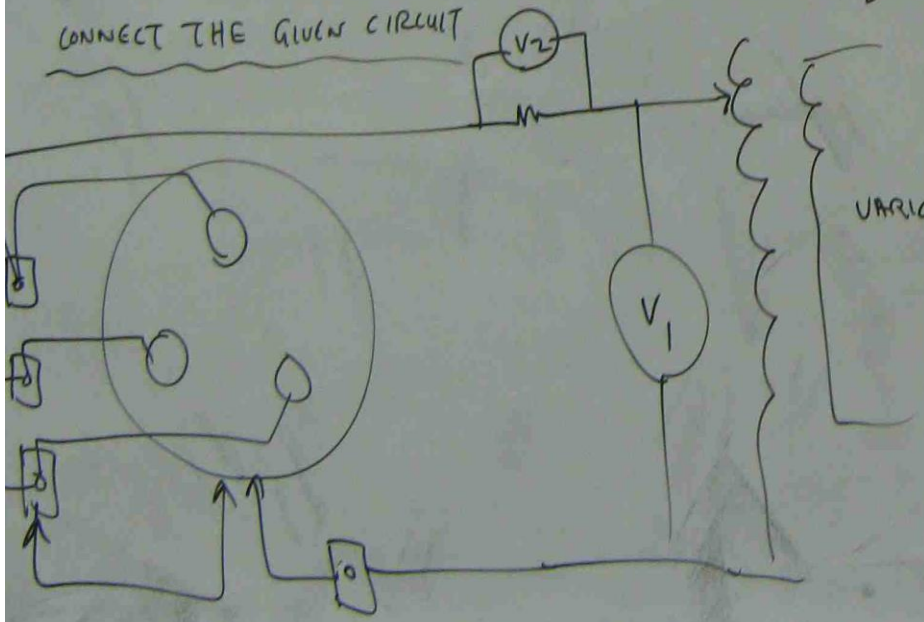


$$C = C_s + 2C_c = \frac{1}{2\pi f X_{C_2}}$$

$$X_{C_2} = \frac{V}{I}$$

CONNECT THE GIVEN CIRCUIT



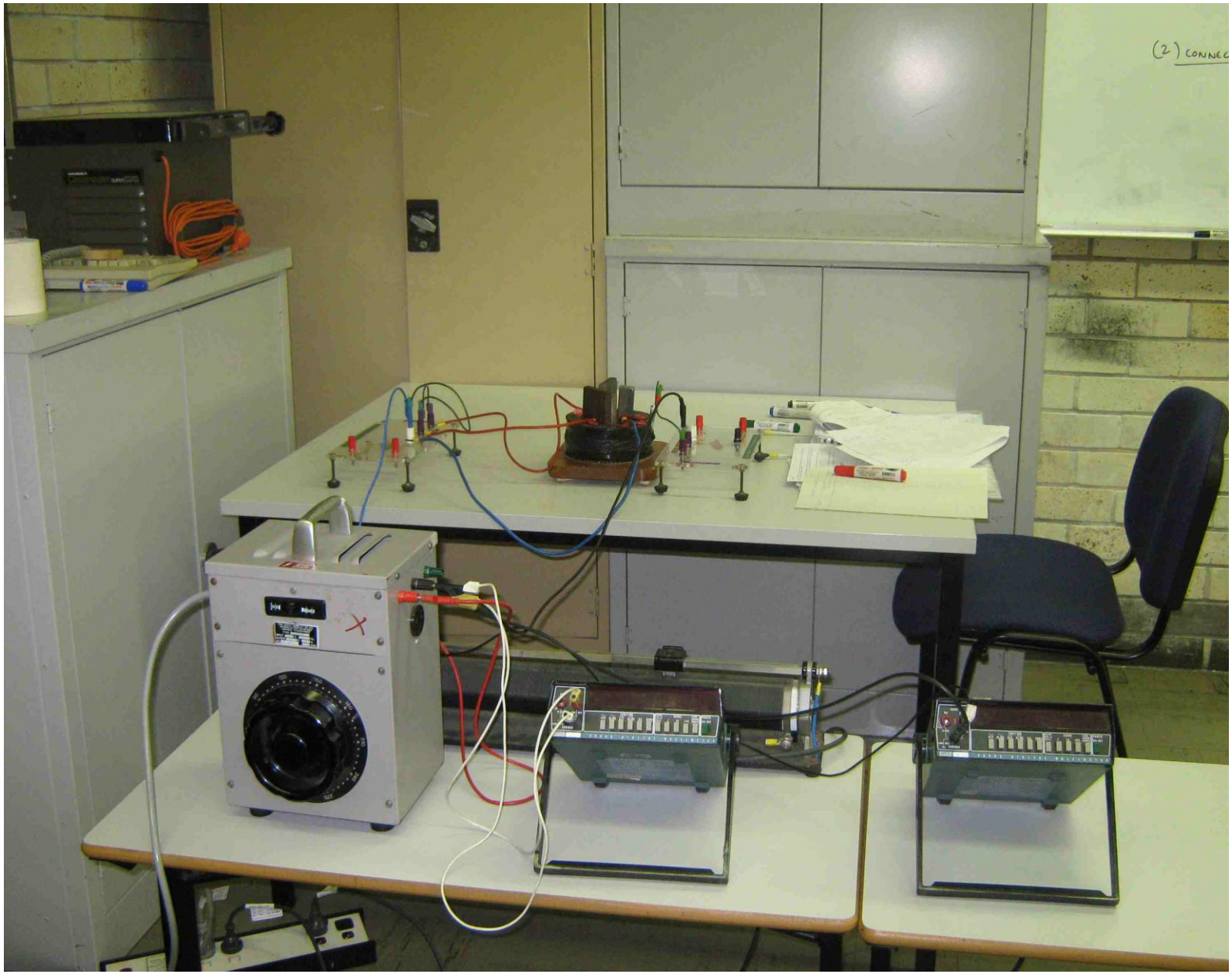
SET $V_1 = 80V$

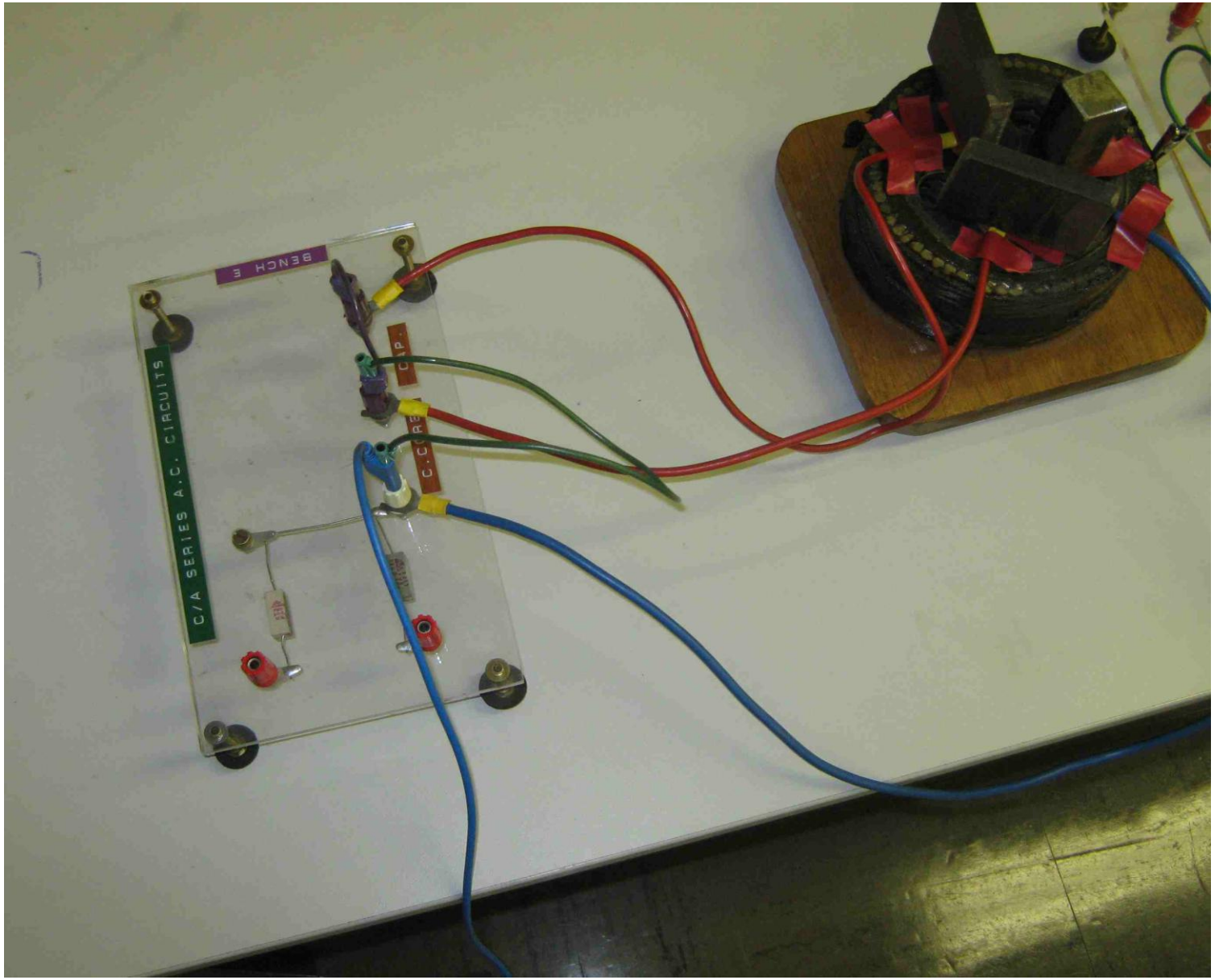
$$X_{C_2} = \frac{V_1 - V_2}{I}$$

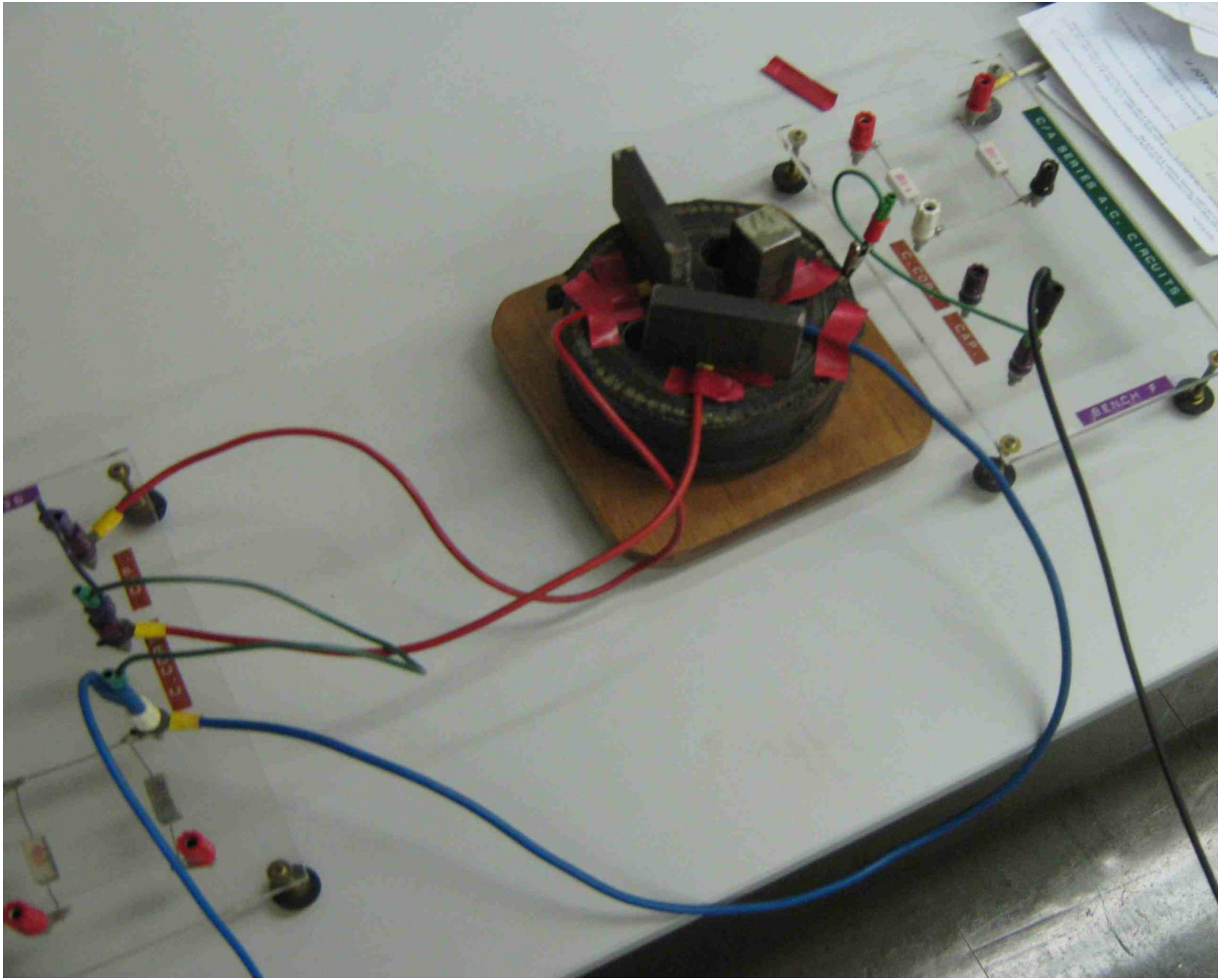
$$X_{C_2} = \frac{V_1 - V_2}{\frac{V_2}{\text{Rheostat } (R)}}$$

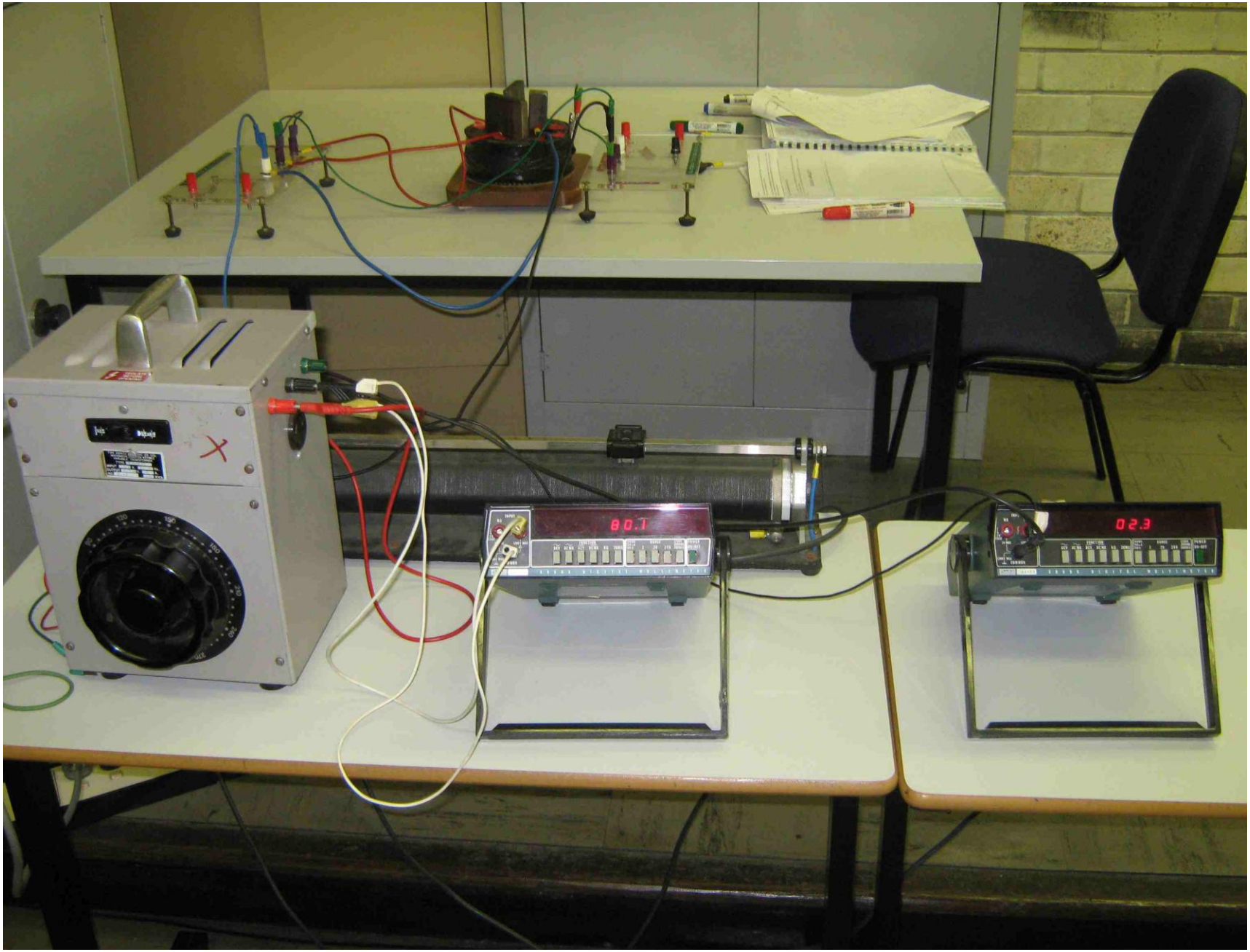
$$C_s + 2C_c = \frac{1}{2\pi f X_{C_2}}$$

THEN CALCULATE C_c


(2) CONNEC


BENCH E
C/A SERIES A.C. CIRCUITS


C/A SERIES A.C. CIRCUITS
CAP.
BENCH F


80.1
02.3