

General physics lab 202

Student's name:.....

Student's number:.....

Experiment 3 : Basic electrostatic system (Capacitance and Dielectrics)

3: V Measured, C Variable, Q Constant

$r =$

$A = \pi r^2 =$

Note :

$$\epsilon_0 = 8.85 \times 10^{-12} \text{ F/m}$$

$$C_E = 25 \times 10^{-12} \text{ F}$$

$d \text{ (mm)}$	$C_p = \frac{\epsilon_0 A}{d}$ (.....)	$C = C_P + C_E$ (.....)	$V \text{ (.....)}$	$Q = CV$ (.....)
2				
6				
10				
14				

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Dielectric Coefficients

d = 3 mm =

r =

A = πr^2 =

Note :
 $\epsilon_0 = 8.85 \times 10^{-12} \text{ F/m}$
 $C_E = 25 \times 10^{-12} \text{ F}$

$$k = \frac{C_E (V_i - V_f) + C_p V_i}{C_p V_f}$$

Material	$C_p = \frac{\epsilon_0 A}{d}$ (.....)	V _i (.....)	V _f (.....)	k
Air				
Plastic				
Paper				