

Name:

Number:

SOLVE THESE QUESTIONS

Question 1

A Parallel-plate capacitor of plate area 2 m^2 and separation of 1.77 mm is connected to a potential difference of 6 V . A glass of dielectric constant $\kappa=4.5$ is inserted between the plates. Calculate (i) the new capacitance of the capacitor and (ii) the amount of charge stored in the capacitor.

Question 2

As shown in the figure ($C_1= C_3=9 \mu\text{F}$, $C_2= C_4=3 \mu\text{F}$, and $C_5=4.5 \mu\text{F}$), calculate the voltage across the C_5 capacitor.

