

10 Conductors and capacitors – Part 1

—Answers

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Work through these after you have tried the questions yourself.

2.1 on its outer surface.

2.2 it stores charge (and energy) on two conducting plates separated by a gap.

2.3 $C = \frac{Q}{V} = \frac{6.0 \times 10^{-4}}{12} = 5.0 \times 10^{-5} \text{ F} = 50 \mu\text{F}.$

2.4 $Q = CV = 50 \times 10^{-6} \times 10 = 5.0 \times 10^{-4} \text{ C}.$

2.5 the size of the plates and the spacing between them (and the material in the gap), not the charge placed on it.