Soluções dos problemas propostos nas Fichas TP de Eletromagnetismo

Ficha TP5

P6:

a) $C_{esf} = 84.5\ \text{pF}$

b) $A = 191\ \text{cm}^2$

P14:

a) $Q_{adicional} = 60\ \mu\text{C}$

b) $\Delta Q = 60\ \mu\text{C}$

P15:

43 pF

P19:

a) $V_{ab} = Vb - Va = +50\ \text{V}$

b) $Q *_{C1} = 50\ \mu\text{C}$

c) $Q *_{C2} = 150\ \mu\text{C}$

P27:

a) $Q_1 = 9.0\ \mu\text{C}$

b) $Q_2 = 16.0\ \mu\text{C}$

c) $Q_3 = 9.0\ \mu\text{C}$

d) $Q_4 = 16.0\ \mu\text{C}$

e) $Q_1 = 8.4\ \mu\text{C}$

f) $Q_2 = 16.8\ \mu\text{C}$

g) $Q_3 = 10.8\ \mu\text{C}$

h) $Q_4 = 14.4\ \mu\text{C}$

P21:

$$Q_{Total} = \varepsilon_0(E_1A_1 + E_2A_2) = 3.6\ \text{pC}$$

P42:

$$\kappa = 4$$