

Homework 3

Answers to exercises are already provided in the text.

10-10. (a) $Z_{EQ}(s) = \frac{R(s^2 + \frac{1}{RC}s + \frac{1}{LC})}{s^2 + \frac{1}{LC}}$; poles at $s = \pm j1/\sqrt{LC}$; zeros at $s = \frac{-\frac{1}{RC} \pm \sqrt{(\frac{1}{RC})^2 - \frac{4}{LC}}}{2}$

(b) Design

10-19. See text

10-26. $i_L(t) = \frac{V_A}{2R} \left(1 - e^{-\frac{2R}{L}t} \right) u(t)$

10-13. See text.

10-25. See text.

10-49. See text.

10-53. See text.