4F1 2009 — Answers

- 1(b)(iii) Imaginary axis crossings of root-locus: 0, $\pm\sqrt{5}$. Real axis crossings of Nyquist diagram: 1/7, -1/18.
 - 2(b)(i) $a_0 < 1$, no condition on T.
 - 2(b)(ii) -1 < a < 8.
 - 3(a)(ii) G(s) has one right half plane zero.

M.C. Smith, 11 May 2009