University of California, Berkeley
EE 236
Fall 2004

Homework Set 3
Due Friday, September 24, 2004 at 1:00 PM

1) Yariv problem 2.4
2) Yariv problem 2.5
3) Yariv problem 2.9
4) A two level system has a representation where the Hamiltonian is represented by a matrix with on diagonal elements E_1 and E_2 (not really energies here), and small off diagonal elements μ and μ (real) Calculate and plot the occupancy of each of the states as a function of time, assuming that the system starts in state 1. (in this representation, which is not the Hamiltonian) Give a formula for the maximum probability amplitude which occurs for state 2, and the period of oscillation.