CS583 Spring 2009
Quiz 04 Feb.18.09   Name: _____ .

Show all work clearly and in order. Justify your answers whenever possible; You have 30 minutes
to take this 10 point quiz.

1. (*5 points*) Given a list of n intervals $\{I_0, I_1, \cdots I_n\}$, where $I_i = (s_i, e_i)$ is a 2-tuple composed
of two real numbers and $s_i \leq e_i$, design a greedy algorithm that finds the largest set of non-
overlapping intervals. Please describe the ideas of your algorithm first and then provide a
pseudocode.

(problem #2 is on the back of the sheet)

2. (*5 points*) What is the optimal variant length coding for the following text: "adecadbab-cadeebbeeae"? Please provide a binary cipher for each character a-e.