Ubiquitous Computing
Spring 2017
Homework No. 6
(Due on May 29)

1. Use the decision tree example.
   A. i) Make a decision tree with 'Taxable Income' as the root, left children (≤ 90K) and right children (> 90K). (20)
   B. ii) Decide for Refund: No, Marital Status: Married, and Taxable Income: 80K. (20)

2. For the k-NN example of p. 6, what is the class of a new data (4,7) instead of (7,5)? (20)

3. For the example of Bayesian network of p. 11, assume that P(J|A) = 0.95 when A = T. Find the probability of Burglary. (20)

4. For the example of nonlinear regression of p. 18, assume that only the top <u>two</u> data are available. Decide the exponential regression model. (20)