**8.1 Briefly outline the major steps of decision tree classification.**

**8.6 Why is naive Bayesian classification called “naive”? Briefly outline the major ideas of**

**naive Bayesian classification.**

**8.12 The data tuples of Figure 8.25 are sorted by decreasing probability value, as returned by**

**a classifier. For each tuple, compute the values for the number of true positives .*TP*/,**

**false positives .*FP*/, true negatives .*TN*/, and false negatives .*FN*/. Compute the true**

**positive rate .*TPR*/ and false positive rate .*FPR*/. Plot the ROC curve for the data.**

**8.14 Suppose that we want to *select between two prediction models*, *M*1 and *M*2. We have**

**performed 10 rounds of 10-fold cross-validation on each model, where the same data**

**partitioning in round *i* is used for both *M*1 and *M*2. The error rates obtained for*M*1 are**

**30.5, 32.2, 20.7, 20.6, 31.0, 41.0, 27.7, 26.0, 21.5, 26.0. The error rates for *M*2 are 22.4,**

**14.5, 22.4, 19.6, 20.7, 20.4, 22.1, 19.4, 16.2, 35.0. Comment on whether one model is**

**significantly better than the other considering a significance level of 1%.**