STA 314H1S: Quiz 4

Time allowed: 10 minutes; Total points: 10

Student Name: _____ Student ID: _____

Please make sure your name and ID are also written clearly on your printout, and remember to hand in your printout together with the quiz. There will be 4 points for your printout. Answer the following question based on your code/output for the computation problem in problem set 4.

1. (2 pts) For part(b), suppose you want to predict the survival time for a male patient with `age = 25` and `wt.loss = 0`, how would you modify your code?
   (Recall that male is coded as 1 and female is coded as 2 in this dataset)

2. (2 pts) For part(c), suppose you know that $\mathbb{E}(y(\mathbf{x}_{new})) = 1$, how can you modify your code to estimate the squared bias of $\hat{y}(\mathbf{x}_{new})$ using the bootstrapping method?

3. (2 pts) Explain why most of those single trees used to construct the bagging prediction will not be identical. Also explain why even though they are not identical, those tress will still be correlated.