Question 1

What is the optimal value of alpha for ridge and lasso regression?
What will be the changes in the model if you choose double the value
of alpha for both ridge and lasso?
What will be the most important predictor variables after the change
is implemented?

A)
1. The optimal value of alpha for ridge and lasso regression
 Ridge Alpha =5
 lasso Alpha 0.001

 2. R2score on training data has increased but it has decreased on
testing data
 3.Predictors are same but the coefficent of these predictor has
changed

 Question 2
You have determined the optimal value of lambda for ridge and lasso
regression during the assignment. Now, which one will you choose to
apply and why?

A) The r2_score of ridge is slightly higher than lasso for the test
dataset so we will choose ridge regression to solve this problem

Question 3

After building the model, you realised that the five most important
predictor variables in the lasso model are not available in the
incoming data. You will now have to create another model excluding
the five most important predictor variables. Which are the five most
important predictor variables now?
 A)
1stFlrSF-----------First Floor square feet
Street_Pave---------Pave road access to property
RoofMatl_Metal------Roof material_Metal
RoofStyle_Shed------Type of roof(Shed)

Question 4
How can you make sure that a model is robust and generalisable? What
are the implications of the same for the accuracy of the model and
why?

A)

the robustness of a model is a measure of its successful application
to data sets other than the one used for training and testing. The
model should be generalized so that the test accuracy is greater
than that of training, Regularizaation will control or affects bias
and complexity of the model, . The model can not be trusted if the

accuracy is not correct.