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?

Optimal Value:

Ridge=10

Lasso = 0.001

If we double the alpha value:

Ridge coefficients will become lower where as for Lasso it will become 0.

Predictors:

SaleCondition_Partial

SaleCondition_Others

SaleCondition_Normal

GarageFinish_Unf

GarageFinish_RFn

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?

Optimal Value:

Ridge=10

Lasso = 0.001

If there are any additional variables added, Lasso regression will make those variable zero and keeps the output constant.

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?

Predictors:

SaleCondition_Partial

SaleCondition_Others

SaleCondition_Normal

GarageFinish_Unf

GarageFinish_RFn

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?

When the test accuracy is greater or approximately equal to train accuracy then we will call it as a generalized model

Implications:

Too much weightage should not be given

Outliers should be treated properly