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?

The optimal value of alpha for lasso regression is around 40. There was no clear optimal value observed for Ridge Regression.

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?
Ans: I'd choose LASSO Regression, because it does force many parameters to go to zero, unlike Ridge Regression.

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?
Ans: The next 5 important predictor variables are:

- Exterior2nd - Wood Shingles
- Land Slope
- KitchenAbvGr
- LotConfig (Frontage on 2 sides of the property)
- Condition 2 (Near positive off-site feature--park, greenbelt, etc.)

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?