Question 1:

The optimum value of alpha for the ridge is 4 and for the lasso is 0.0005. After doubling the alpha for ridge from 4 to 8 there is no big difference top five positive variables stay the same but their coefficients slightly got decreased. The same goes for the first two variables in lasso, but here the third variable 'BsmtFinSF1' was replaced by '1stFlrSF', the fourth variable 'ExterQual got replaced by 'BsmtFinSF1' and the fifth 'New' has got replaced by '2ndFlrSF'.

Question 2:

I will choose the Lasso regression as there is no big difference between Ridge and Lasso in terms of the r2_score or RMSE. Apart from that Lasso has an advantage over the Ridge as it brings most of the insignificant variables to zero the model will be simple and Robust.

Question 3:

The five most important variables after creating the model again (lasso) by excluding the top five features are:

1. LotArea
2. KitchenQual
3. StoneBr
4. MasVnrArea
5. 1stFlrSF

Question 4:

We can keep the model simple and robust by having only the significant variables and balancing the bias and variance. By sacrificing little bias, we can reduce the larger amount of variance and so keeping the model simple and robust. More bias and less variance will cause the model to become underfit likewise more variance and less bias makes the model overfit.