MACHINE LEARNING ASSIGNMENT 6

1) C
2) B
3) C
4) A
5) B
6) A,D
7) B
8) A
9) C,B

10) Adjusted R^2 is a modified version of R^2 adjusted with the number of predictors. It penalizes for adding unnecessary features and allows a comparison of regression models with a different number of predictors. Here k is the number of explanatory variables in the model and n is the number of observations

11) The main difference between Ridge and LASSO Regression is that if ridge regression can shrink the coefficient close to 0 so that all predictor variables are retained. Whereas LASSO can shrink the coefficient to exactly 0 so that LASSO can select and discard the predictor variables that have the right coefficient of 0.

12)
In statistics, the variance inflation factor (VIF) is the ratio (quotient) of the variance of estimating some parameter in a model that includes multiple other terms (parameters) by the variance of a model constructed using only one term. It quantifies the severity of multicollinearity in an ordinary least squares regression analysis.

13) Standardization is a preprocessing method used to transform continuous data to make it look normally distributed. In this is often a necessary step because many models assume that the data you are training on is normally distributed, and if it isn't, your risk biasing your model.
14) R squared, the proportion of variation in the outcome Y, explained by the covariates X, is commonly described as a measure of goodness of fit. This of course seems very reasonable, since R squared measures how close the observed Y values are to the predicted (fitted) values from the model.
15)
    Precision=0.952
    Specificity=0.96
    Accuracy=0.88
    Sensitivity=0.8