MACHINE LEARNING 6

ANSWER -1 D

ANSWER -2 C

ANSWER -3 D

ANSWER -4 A

ANSWER -5 C

ANSWER -6 A D

ANSWER – 7 B C

ANSWER 8- D

ANSWER -9 D

ANSWER -10

The adjusted R-squared compensates for the addition of variables and **only increases if the new predictor enhances the model above what would be obtained by probability**. Conversely, it will decrease when a predictor improves the model less than what is predicted by chance.

ANSWER -11

Similar to the lasso regression, ridge regression puts a similar constraint on the coefficients by introducing a penalty factor. However, **while lasso regression takes the magnitude of the coefficients, ridge regression takes the square**. Ridge regression is also referred to as L2 Regularization.

ANSWER -12

As a rule of thumb, a VIF of **three or below** is not a cause for concern. As VIF increases, the less reliable your regression results are going to be.

ANSWER -13

To ensure that the gradient descent moves smoothly towards the minima and that the steps for gradient descent are updated at the same rate for all the features, we scale the data before feeding it to the model.

ANSWER -14

There are three error metrics that are commonly used for evaluating and reporting the performance of a regression model; they are: **Mean Squared Error (MSE). Root Mean Squared Error (RMSE). Mean Absolute Error (MAE)**

ANSWER -15

1. sensitivity = recall = tp / t = tp / (tp + fn)
2. specificity = tn / n = tn / (tn + fp)
3. precision = tp / p = tp / (tp + fp)