Ans. 1) C

Ans. 2) B

Ans. 3) C

Ans. 4) C

Ans. 5) B

Ans. 6) A and D

Ans. 7) B and C

Ans. 8) A and B

Ans. 9) A and B

Ans 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.

Ans. 11) Ridge and Lasso regression uses two different penalty functions for regularisation. Ridge regression uses L2 on the other hand lasso regression go uses L1 regularisation technique. In ridge regression, the penalty is equal to the sum of the squares of the coefficients and in the Lasso, penalty is considered to be the sum of the absolute values of the coefficients. In lasso regression, it is the shrinkage towards zero using an absolute value (L1 penalty or regularization technique) rather than a sum of squares(L2 penalty or regularization technique).

Ans. 12) The Variance Inflation Factor (VIF) measures the severity of multicollinearity in regression analysis. It is a statistical concept that indicates the increase in the variance of a regression coefficient as a result of collinearity.

Ans. 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.

Ans 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)

Ans. 15) Accuracy   =   0.88

    Sensitivity   =   0.8

    Specificity   =   0.96

    Precision   =   0.95

    Recall   =   0.8