

## MACHINE LEARNING

- 1) High R-squared value for train-set and High R-squared value for test-set-a
- 2) Decision trees are highly prone to overfitting.-b
- 3) Random Forest-c
- 4) Accuracy-a
- 5) Model B-b
- 6) Ridge-a, Lasso-d
- 7) Random Forest-c. Decision Tree-b
- 8) Restricting the max depth of the tree-c, Pruning-a
- 9) It is example of bagging technique-c, We initialize the probabilities of the distribution as  $1/n$ , where  $n$  is the number of data-points-a
- 10) adjusted R-squared penalize the presence of unnecessary predictors in the model only increases new predictor enhances model above what would obtained by probability.
- 11) lasso regression takes magnitude of the coefficients, ridge  $r$  takes the square.
- 12) VIF is measure of amount of multicollinearity in regression. Multicollinearity exists when there is a correlation between multiple independent variables.
- 13) scale the data before feeding it to the train the model because to get gradient descent same for all the features and smooth for all.
- 14) different metrics which are used to check the goodness of fit in linear regression are R-squared and RMS.
- 15) precision-0.95, Recall-0.8, accuracy-0.88, sensitivity-0.8, specificity-0.96