1. (i) Write a function in R programming to print generate Fibonacci sequence using Recursion in R

(ii) Find sum of natural numbers up-to 10, without formula using loo statement.

(iii) create a vector 1:10 and Find a square of each number and store that in a separate list.

2. (motor trend car road test) comprises fuel consumption, performance and 10 aspects of automobile design for 32 automobiles. It comes pre-installed with package in R.

(i)Find the dimension of the data

(ii)Give the statistical summary of the features.

(iii)Print the categorical features in Dataset

(iv)Find the average weight(wt) grouped by Engine shape(vs)

(v)Find the largest and smallest value of the variable weight with respect to Engine shape

3.Use ggplot package to plot below EDA questions label the plot accordingly

(i)Create weight(wt) vs displacement(disp) scatter plot factor by Engine Shape(vs)

(ii) Create horsepower (hp) vs mileage (mgp) scatter plot factor by Engine Shape(vs)

(iv)In above(ii) plot , Separatecolumns according to cylinders(cyl) size

(v) Create histogram plot for horsepower (hp) with bin-width size of 5

4. Performing Logistic regression on dataset to predict the cars Engine shape(vs) .

(i)Do the EDA analysis and find the features which is impact the Engine shape and use this for model.

(ii) Split the data set randomly with 80:20 ration to create train and test dataset and create logistic model

(iii)Create the Confusion matrix among prediction and test data.