

## Assignment #

### Code Implementation

- 1) Download the dataset for two exam results from the given link:

[https://docs.google.com/document/d/1Mly1qOrqKONOOWFze7hOg5hUy3\\_omx2o/edit#](https://docs.google.com/document/d/1Mly1qOrqKONOOWFze7hOg5hUy3_omx2o/edit#)

Divide the data into:

- training 1-90
- testing: 91-100

Apply the KNN algorithm with  $K=3$  and  $K=5$  :

Regression for data(91-100).

Classification of data(91-100).

Compute the accuracy and also find the best  $K$ .

**Marks:25**

**Do not use inbuilt functions or libraries.**

- 2) Download the dataset for heart-disease from the given link:

[https://drive.google.com/file/d/1x9dy6d\\_pTUM8CMwyXH5J1Uv4J8xqYc\\_b/view?usp=sharing](https://drive.google.com/file/d/1x9dy6d_pTUM8CMwyXH5J1Uv4J8xqYc_b/view?usp=sharing)

WAP to implement the Decision Tree with information gain as an attribute selection measure.

Consider Sex, Fbs, exang features for the classification problems.

Consider Age and cholesterol features for regression problems.

**Do not use inbuilt functions or libraries.**

**Marks:25**

3) Download the dataset for heart-disease from the given link:

[https://drive.google.com/file/d/1x9dy6d\\_pTUM8CMwyXH5J1Uv4J8xqYc\\_b/view?usp=sharing](https://drive.google.com/file/d/1x9dy6d_pTUM8CMwyXH5J1Uv4J8xqYc_b/view?usp=sharing)

WAP to implement the Random forest.

Consider only Sex, Fbs, exang features for the classification problems.

Consider Age and cholesterol features for regression problems. **Marks:25**