

Department of Mathematics
MTL390 (Statistical Methods)
Assignment No. 1

Max. Marks: 100

Download the dataset corresponding to your Entry Number and Name ("EntryNumber_Name") from the link iiitd.info/mtl390-assignment1. You may use Matlab/Python/R for the following questions.

1. Write the frequency table with suitable intervals (minimum of 10 intervals required). (10 marks)
2. Draw the histogram for the data. (10 marks)
3. Draw the bar chart/bar graph for the data. (10 marks)
4. Draw the box plot for the data. (10 marks)
5. Calculate the following measures for the data.
 - (a) Mean (5 marks)
 - (b) Median (5 marks)
 - (c) Mode (5 marks)
 - (d) Coefficient of variation (5 marks)
 - (e) Coefficient of skewness (5 marks)
 - (f) Coefficient of kurtosis (5 marks)
 - (g) Inter-quartile range (5 marks)
 - (h) Check whether the empirical relation $\text{mode} = 3 \text{ median} - 2 \text{ mean}$ holds or not (5 marks)
6. Find the distribution that best to the data. You may use any package available in Matlab/Python/R. (20 marks)