



**AI and Data Science Department**

Subject: SAIDS

Class Assignment No : 1

Submission : 11/8/2023

Q1) Following table shows values of 10 data points of a sample: Find mean, standard deviation, standard error, and 95% confidence interval for the sample.

Data	Value
1	6
2	7
3	2
4	6
5	2
6	5
7	3
8	2
9	2
10	4

Q2) Find Correlation coefficient for between variables x & y.

n	x	y
1	14.2	215
2	16.4	325
3	11.9	185
4	15.2	332
5	18.5	406
6	22.1	522
7	19.4	412
8	25.1	614
9	23.4	544
10	18.1	421

Q3) Find 25<sup>th</sup> & 50<sup>th</sup> & 75<sup>th</sup> percentile of following Data.

N          value



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1	2
2	2
3	2
4	2
5	3
6	4
7	5
8	6
9	6
10	7

### Theory Question

1. Explain box plot and violin plot?
2. Compare scatter plot and Hexagon Binning?