**Statistics**

**Question 1**

What is the meaning of six sigma in statistics? Give proper example

**Solution 1**

Six Sigma :- It is an statical concept it is used to measure the quality of the process Sigma is also used as a measurement tool to determine how much variation exists within a group or population.it is also used to determine how much variation is exits in population

**Question 2**

What type of data does not have a log-normal distribution or a Gaussian distribution? Give proper example

**Solution 2**

**It** is refers as non-normally distributed data in which data may have the different pattern and distribution

Example ➖

Skewed data

Tailed distribution

Poisson distribution

Exponential Distribution

**Question 3**

What is the meaning of the five-number summary in Statistics? Give proper example

**Solution 3**

That is used for provide insights about the distribution this set of [statistics](https://statisticsbyjim.com/glossary/statistics/) describes where data values occur, their central tendency, variability, and the general shape of their distribution.

the five number summary provides this information using various [descriptive statistics](https://statisticsbyjim.com/glossary/descriptive-statistics/). These statistics are all order statistics—each one describes where a particular value falls in the distribution. The five statistics in this summary are the following, from highest to lowest data values:

* Highest value in the dataset.
* Third quartile (Q3)—greater than 75% of the values in the dataset
* Median or second quartile (Q2)—splits the dataset in half.
* First quartile (Q1)—greater than 25% of the values.
* Lowest value in the dataset.

**Question 4**

What is correlation? Give an example with a dataset & graphical representation on jupyter Notebook

**Solution 4**

Correlation :- It is an statistical concept which is used to measure the relationship between the two variable It can be used to determine how strongly two variables are related, and whether the relationship is positive or negative