# DATA ANALYTICS ASSIGNMENT QUESTIONS

## DAY - 4:

**1.Explain the fundamental principle of counting and provide an example. How does the multiplication rule extend the principle of counting, and when is it applicable?**

**2.Define probability and probability distribution. Provide an example of a probability distribution and explain how it meets the properties of a valid probability distribution.**

**3.    Define sampling distribution and explain its role in inferential statistics. Provide an example scenario where understanding the sampling distribution is crucial for making statistical inferences.**

**4.What is the role of a sampling distribution in inferential statistics?**

a) To describe the distribution of a population

b) To analyze the variability within a single sample

c) To make predictions about a population based on a sample

d) To determine the probability of a specific outcome in a single trial