Lab 6: Normal population and Shape of Distribution

Question 1:

Generate a normal distribution of data points with a mean of 60 and a standard deviation of 12. Plot a histogram for the generated data. Analyze the symmetry and bell-shaped curve of a normal distribution and visualize its Probability Density Function (PDF).

Question 2:

The normalized distribution for a person's daily calorie intake has a mean of 30 calories and a standard deviation of 5 calories. Write a python code that Calculates and visualizes the following probabilities for a randomly selected person having a daily calorie intake:

    I.   Greater than or equal to 19 calories.

    II.   Less than or equal to 19 calories.

    III.   Between 19 and 35 calories.