

## PLOTTING WITH PYPLOT

### ASSIGNMENTS

Q.1 What is matplotlib?

Q.2 How is bar graph is different from histogram?

Q.3 Which function is used to show the graph?

Q.4 Write a python program to display a bar graph of the number of students in a class ,Use different color for each bar.

Sample Data

Class : I,II,III,IV,V,VI,VII,VIII

Strengths : 45,56,34,44,39,42,43,52

Q.5 Write a python program using matplotlib.pyplot library to create a bar graph with following list values

x = [2,4,6,8,10]

y=[3,9,11,2,6]

Q.6 Name the various methods used with pyplot object.

Q.7 Make a frequency table and histogram of the following data:

3,5,8,11,13,2,19,22,23,25,3,10,21,14,9,12,17,22,23,14

Q.8 Create a histogram for the following data

Average gas mileage in miles/gallon:

24,17,14,22,25,26,38,42,24,14,28,19,32,21,35,28,21,31,18,19

Q.9 Below is the number of pages in each of the six books that a student read this summer.

584,201,255,

44,312,334

Using the data, create a histogram.

Q.10 Construct a frequency polygon using the data given below:

Test Scores	Frequency
49.5-59.5	5
59.5-69.5	10
69.5-79.5	30
79.5-89.5	40
89.5-99.5	15

Q.11 In a batch of 400 students, the height of students is given in the following table. Represent it through a frequency polygon.

Height (in cm)	Number of Students(Frequency)
140 – 150	74
150 – 160	163
160 – 170	135
170 – 180	28
Total	400

Q.12 Mayank saves a portion of his salary from his part-time job in the hope of buying a used car. He recorded the Rupees he was able to save over the past 15 weeks.

Rupees saved: 19, 12, 9, 7, 17, 10, 6, 18, 9, 14, 19, 8, 5, 17, 9

Draw the box plot for the same.

Q.13 Mahesh collected data about exams in each of his classes from the previous year. Plot the data in a scatter plot.

Class	English	Math	History	CS	Arts	Biology
Period	111	666	222	444	333	555
Avg score	959595	858585	707070	656565	909090	707070