

**GURU TEG BAHADUR ACADEMY**

**CLASS XII**

**SUBJECT: INFORMATICS PRACTICES  
SUMMER VACATION ASSIGNMENT**

**Chapter: Plotting with pyplot**

**A. Choose the correct option:**

1. Which library is used for plotting in Python?  
a) Matplotlib      b) Pyplot      c) NumPy      d) Pandas
2. What is the purpose of the pyplot function "plot()"?  
a) To display the plot      b) To create a new figure  
c) To plot data points      d) To label the axes
3. Which function is used to add a title to the plot?  
a) title()      b) label()      c) legend()      d) text()
4. What is the default line style in pyplot?  
a) Solid line      b) Dashed line      c) Dotted line      d) No line
5. Which function is used to display the plot?  
a) show()      b) display()      c) plot()      d) figure()
6. How do you create a scatter plot in pyplot?  
a) plot(x, y, 's')      b) plot(x, y, 'o')      c) plot(x, y, '^')      d) plot(x, y, '\*')
7. Which function is used to add labels to the x-axis?  
a) xlabel()      b) ylabel()      c) title()      d) label()
8. What is the purpose of the pyplot function "legend()"?  
a) To add a title to the plot      b) To add labels to the axes  
c) To display the plot      d) To add a legend to the plot
9. Which function is used to create a histogram in pyplot?  
a) hist()      b) histogram()      c) bar()      d) plot()
10. How do you create a bar chart in pyplot?  
a) plot(x, y, 'b')      b) bar(x, y)      c) plot(x, y, 'B')      d) bar(x, y, 'B')

**B. Short Question Answers**

1. What is the purpose of the pyplot function "figure()"?
2. How do you add a label to the y-axis in pyplot?
3. What is the difference between the plot() and scatter() functions in pyplot?
4. How do you add a title to the plot in pyplot?

5. What is the purpose of the show() function in pyplot?

C. Programming:

1. Plot the data in the table below using a bar chart and do the following:
  - a. Add labels to the x and y axes
  - b. Add a title

X	Y
1	10
2	20
3	30
4	40

2. Create a histogram of the data in the table below.

X
10
20
30
40
50

2. Create a line plot of the data in the table below.

X	Y
1	2
2	4
3	6
4	8