Matplotlib Test (2 Marks Each)

**Scatter Plot**

1. **What type of analysis is a scatter plot typically used for?**

a) Univariate   
b) Bivariate   
c) Multivariate   
d) None of the above

A) **b) Bivariate**

2. **In a scatter plot, what is plotted along the X-axis and Y-axis?**

a) Both categorical   
b) X-axis: Categorical, Y-axis: Continuous   
c) Both continuous   
d) X-axis: Continuous, Y-axis: Categorical

A) **c) Both continuous**

3. **Which of the following is a key purpose of a scatter plot?**

a) Showing trends over time   
b) Displaying part-to-whole relationships   
c) Comparing distributions   
d) Showing relationships between two continuous variables

A) d) Showing relationships between two continuous variables

4. **What does each point in a scatter plot represent?**

a) A pair of values   
b) A category   
c) A frequency count   
d) A bin range

1. a) A pair of values



**Pie Chart**

5. **What kind of variable is represented on the X-axis in a pie chart?**

a) Continuous   
b) Categorical   
c) Both continuous and categorical   
d) None

A) **d) None**

6. **What does a pie chart visually represent?**

a) Relationship between two variables   
b) Distribution of a single variable   
c) Proportions or percentages of different categories d) Trends over time

A) c) Proportions or percentages of different categories

7. **Which type of analysis is typically performed using a pie chart?**

a) Bivariate   
b) Multivariate

c) Univariate   
d) None of the above

1. **c) Univariate**



**Line Plot**

8. **What is the primary use of a line plot?**

a) Comparing categories   
b) Showing relationships between two variables   
c) Displaying trends over time   
d) Comparing distributions

A) c) Displaying trends over time

9. **What type of data is usually plotted along the X-axis in a line plot?**

a) Categorical   
b) Continuous, usually time   
c) Percentages   
d) Frequencies

A) **b) Continuous, usually time**

10. **In a line plot, what do the lines between data points represent?** a) Gaps between data   
b) A trend or sequence   
c) Group categories   
d) Proportions

1. b) A trend or sequence



**Histogram**

11. **What does a histogram display?**

a) Relationships between two continuous variables b) Trends over time   
c) The distribution of a single continuous variable d) Proportions of different categories

A) c) The distribution of a single continuous variable

12. **What is represented on the Y-axis of a histogram?**

a) Proportions   
b) Time   
c) Frequency or count   
d) Categories

1. c) Frequency or count

13. **Which of the following is true for histograms?**  a) They compare categories.

b) They group data into bins and count observations. c) They show trends between variables.

d) They represent proportions of parts to a whole.

1. b) They group data into bins and count observations.



**Bar Plot**

14. **What type of variable is usually plotted along the X-axis in a bar plot?**

a) Continuous   
b) Time-based   
c) Categorical   
d) Both categorical and continuous

A) c) Categorical

15. **Which of the following statements about bar plots is true?**

a) Bar plots are typically used to show trends over time.

b) Bar plots compare different categories or groups using bars of varying lengths. c) Bar plots display the distribution of a single variable in bins.

d) Bar plots illustrate proportions of categories in a circle.

1. b) Bar plots compare different categories or groups using bars of varying lengths.

