# 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

Answer: b

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

Answer: c

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

Answer: d

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

Answer: a

## 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

Answer: d

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

Answer: c

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

a) Bivariate

b) Multivariate

c) Univariate

d) None of the above

Answer: c

## 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

Answer: c

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

Answer: b

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

Answer: b

## 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

Answer: c

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

a) Proportions

b) Time

c) Frequency or count

d) Categories

Answer: c

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.

Answer: b

## 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

Answer: c

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.

Answer: b