

****Matplotlib Quiz (Easy)****

****Instructions:** Choose the best answer for each multiple-choice question.**

1. What is Matplotlib primarily used for?

- A) Data manipulation
- B) Data visualization
- C) Machine learning
- D) Web development

****Correct Answer: B****

2. Which of the following is the primary plotting object in Matplotlib?

- A) Figure
- B) Axes
- C) Plot
- D) Graph

****Correct Answer: B****

3. What function is used to create a line plot in Matplotlib?

- A) `plot()`
- B) `bar()`
- C) `scatter()`
- D) `hist()`

****Correct Answer: A****

4. What does `plt` usually refer to in Matplotlib code?

- A) The `pyplot` module
- B) The `matplotlib` module
- C) The `Figure` object
- D) The `Axes` object

****Correct Answer: A****

5. Which command displays the plot?

- A) ``show()``
- B) ``display()``
- C) ``render()``
- D) ``draw()``

****Correct Answer: A****

6. What function creates a bar chart?

- A) ``plot()``
- B) ``bar()``
- C) ``scatter()``
- D) ``hist()``

****Correct Answer: B****

7. What function creates a scatter plot?

- A) ``plot()``
- B) ``bar()``
- C) ``scatter()``
- D) ``hist()``

****Correct Answer: C****

8. What function creates a histogram?

- A) ``plot()``
- B) ``bar()``
- C) ``scatter()``
- D) ``hist()``

****Correct Answer: D****

9. How do you add a title to a plot?

- A) ``title("My Plot")``

B) ``add_title("My Plot")``

C) ``set_title("My Plot")``

D) ``plot_title("My Plot")``

****Correct Answer: C****

10. How do you add labels to the x-axis and y-axis?

A) ``xlabel()`` and ``ylabel()``

B) ``set_xlabel()`` and ``set_ylabel()``

C) ``x_label()`` and ``y_label()``

D) Both A and B

****Correct Answer: D****

11. What is used to customize the appearance of lines in a plot?

A) Line styles

B) Markers

C) Colors

D) All of the above

****Correct Answer: D****

12. What does the ``figsize`` argument in ``figure()`` control?

A) Font size

B) Figure size

C) Plot size

D) Title size

****Correct Answer: B****

13. What is a legend used for in a plot?

A) To label different data series

B) To add a title

C) To change the colors

D) To add grid lines

****Correct Answer: A****

14. How do you add a legend to a plot?

A) ``add_legend()``

B) ``legend()``

C) ``show_legend()``

D) ``plot_legend()``

****Correct Answer: B****

15. Which object is used to annotate points on a plot?

A) ``annotate()``

B) ``label()``

C) ``comment()``

D) ``mark()``

****Correct Answer: A****

16. What does ``plt.savefig()`` do?

A) Displays the plot

B) Saves the plot to a file

C) Closes the plot

D) Clears the plot

****Correct Answer: B****

17. What type of chart is best suited for showing the proportion of different categories?

A) Line chart

B) Scatter plot

C) Pie chart

D) Bar chart

****Correct Answer: C****

18. How do you create subplots in Matplotlib?

- A) ``subplot()``
- B) ``subplots()``
- C) ``sub_plots()``
- D) ``multiple_plots()``

****Correct Answer: B****

19. What does ``plt.grid()`` do?

- A) Adds a legend
- B) Adds a title
- C) Adds a grid to the plot
- D) Saves the plot

****Correct Answer: C****

20. Is Matplotlib a standalone library or does it depend on other libraries?

- A) Standalone
- B) Depends on other libraries like NumPy
- C) Depends on Pandas only
- D) Depends on Scikit-learn only

****Correct Answer: B****