Test MatPlotLib

For this test create an testResult_topic_yourName.py and for each answer write an example code that is executable and correct!

Question 1:

What is the primary function used to create a basic plot in Matplotlib?

- a) `plt.plot()`
- b) `plt.create()`
- c) `plt.draw()`
- d) `plt.chart()`

Question 2:

Which module do you import to use Matplotlib in Python?

- a) `import matplotlib as plt`
- b) `import matplotlib.pyplot as plt`
- c) `import matplotlib.graph as plt`
- d) `import matplotlib.data as plt`

Question 3:

How can you set the title of a plot using Matplotlib?

- a) `plt.title('My Plot')`
- b) `plt.set_title('My Plot')`
- c) `plt.plot_title('My Plot')`
- d) `plt.label('My Plot')`

Question 4:

What method is used to add a grid to the plot?

- a) `plt.show_grid()`
- b) `plt.grid()`
- c) `plt.add_grid()`
- d) `plt.draw_grid()`

Question 5:

Which of the following is the correct way to create a scatter plot?

- a) `plt.scatter(x, y)`
- b) `plt.plot_scatter(x, y)`
- c) `plt.scatter_plot(x, y)`
- d) `plt.plot(x, y, 'o')`

Question 6:

How do you save a Matplotlib figure to a file (e.g., PNG)?

- a) `plt.savefig("filename.png")`
- b) `plt.savefig('filename.png')`
- c) `plt.writefig('filename.png')`
- d) `plt.save('filename.png')`

Question 7:

What method is used to add labels to the x and y axes of a plot?

- a) `plt.label(x='x-axis', y='y-axis')`
- b) `plt.xlabel('x-axis')` and `plt.ylabel('y-axis')`
- c) `plt.set_xlabel('x-axis')` and `plt.set_ylabel('y-axis')`
- d) `plt.axis_labels('x-axis', 'y-axis')`

Question 8:

How can you create a subplot layout with 2 rows and 3 columns?

- a) `plt.subplots(2, 3)`
- b) `plt.subplot(2, 3)`
- c) `plt.subplot_grid(2, 3)`
- d) `plt.grid(2, 3)`

Question 9:

To plot a histogram, which function is used?

- a) `plt.hist()`
- b) `plt.bar()`
- c) `plt.plot()`
- d) `plt.scatter()`

Question 10:

How do you set the x-axis and y-axis limits of a plot?

- a) `plt.set_xlim(left, right)` and `plt.set_ylim(bottom, top)`
- b) `plt.xlim(left, right)` and `plt.ylim(bottom, top)`
- c) `plt.axis_limits(left, right, bottom, top)`
- d) `plt.axis_range(left, right, bottom, top)`