1.

Question 1
How would a list and a NumPy array behave when they are multiplied by 3?
1 / 1 point
Multiplying a list by 3 creates a new list 3 times the length with the original sequence repeated 3 times.
Multiplying a NumPy array by 3 performs an element-wise calculation on the array, which sees the array stay the same size, but each element has been multiplied by 3.
Multiplying a list by 3 performs an element-wise calculation on the list, which sees the list stay the same size, but each element has been multiplied by 3.
Multiplying an NumPy array by 3 creates a new array 3 times the length with the original sequence repeated 3 times.

ANSWER: (A) Multiplying a list by 3 creates a new list 3 times the length with the original sequence repeated 3 times.
Correct
This is how a list behaves when multiplied.
(B)Multiplying a NumPy array by 3 performs an element-wise calculation on the array, which sees the array stay the same size, but each element has been multiplied by 3.
Correct
This is how a NumPy array behaves when multiplied.

2.

Question 2
If you have a NumPy array with the shape (2,35), what does this tell you about the elements in the array?
1 / 1 point
The array contains 35 elements, all with the value 2.
The array contains 2 elements with the values of 2 and 35.
The array is two dimensional, consisting of two arrays with 35 elements each.

ANSWER: (C) The array is two dimensional, consisting of two arrays with 35 elements each.

Correct
A shape of (2,35) indicates a multidimensional array with two arrays, each containing 35 elements.

3.

Question 3
Suppose you have a Pandas DataFrame named df_sales containing daily sales data. The DataFrame has the following columns: year, month, day_of_month, sales_total. If you want to find the average sales_total value, which code should you use?
1 / 1 point
df_sales['sales_total'].avg()
df_sales['sales_total'].mean()
mean(df_sales['sales_total'])

ANSWER: (B) df_sales['sales_total'].mean()
Correct
This code will return the average of the sales_total column values.

4.

Question 4
You work on a DataFrame containing data about daily ice cream sales. You use the corr method to compare the avg_temp and units_sold columns, and get a result of 0.95. What does this result indicate?
1 / 1 point
The units_sold value is, on average, 95% of the avg_temp value.
On the day with the maximum units_sold value, the avg_temp value was 0.95.
Days with high avg_temp values tend to coincide with days that have high units_sold values.

ANSWER: (C) Days with high avg_temp values tend to coincide with days that have high units_sold values.

Correct
The corr method returns the correlation, and a value near 1 indicates a positive correlation.

5.

Question 5
This is a relative metric in which the higher the value, the better the fit of the model.

Which evaluation model is described?
1 / 1 point
Coefficient of Determination (known as R-squared or R2)
Mean Square Error (MSE)
Root Mean Square Error (RMSE)

ANSWER: (A) Coefficient of Determination (known as R-squared or R2)

Correct
This is the evaluation metric described. In essence, this metric represents how much of the variance between predicted and actual label values the model is able to explain.

6.

Question 6
This evaluation metric yields an absolute metric in the same unit as the label.

Which metric is described?
1 / 1 point
Mean Square Error (MSE)
Root Mean Square Error (RMSE)
Coefficient of Determination (known as R-squared or R2)

ANSWER: (B) Root Mean Square Error (RMSE)

Correct
This is the described metric. This means that the smaller the value, the better the model.

7.

Question 7
You've just created a model object using the LinearRegression class from the scikit-learn library.

What should you do next to train the model?
1 / 1 point
Call the predict() method of the model object, specifying the training feature and label arrays.
Call the score() method of the model object, specifying the training feature and test feature arrays.
Call the fit() method of the model object, specifying the training feature and label arrays.
ANSWER: (C) Call the fit() method of the model object, specifying the training feature and label arrays.
Correct
To train the model, use the fit() method.