**🟦 PART 1: Pandas Series – 15 Questions**

**🔹 Basic Series Creation**

1. Create a Series from a list [10, 20, 30, 40].
2. Create a Series from a tuple ('a', 'b', 'c').
3. Create a Series from a dictionary {'a': 1, 'b': 2, 'c': 3}.
4. Create a Series with custom index labels: ['x', 'y', 'z'] for values [100, 200, 300].
5. Create a Series with default index using range(4).

**🔹 Series Operations**

1. Add two Series: [1, 2, 3] + [4, 5, 6].
2. Multiply Series [2, 4, 6] by 3.
3. Access the second element of Series [10, 20, 30, 40].
4. Slice the Series from index 1 to 3 (inclusive).
5. Check if 'b' is an index in the Series {'a': 1, 'b': 2, 'c': 3}.

**🔹 Series Attributes & Methods**

1. Get the values and index of a Series.
2. Convert a Series to a list.
3. Find the max and min of Series [10, 20, 5, 3].
4. Sort a Series in descending order.
5. Apply a lambda function to square all elements in a Series.

**🟨 PART 2: Creating DataFrames from Lists, Dicts, Arrays – 25 Questions**

**🔹 From List of Lists**

1. Create a DataFrame from [[1, 'A'], [2, 'B'], [3, 'C']] with columns 'ID', 'Grade'.
2. Create a DataFrame from a 2D list with 4 rows and 3 columns, and add custom column names.
3. Create a DataFrame from nested list with missing values (use None).
4. Create a DataFrame from list of lists and assign custom row index.
5. Access the second row from the created DataFrame.

**🔹 From List of Dictionaries**

1. Create a DataFrame from [{'a': 1, 'b': 2}, {'a': 3, 'b': 4}].
2. Create a DataFrame from list of dicts with missing keys.
3. Change the column order in the DataFrame.
4. Create a DataFrame from list of dicts and rename the columns.
5. Access a specific cell (row 1, column 'a').

**🔹 From Dictionary of Lists**

1. Create a DataFrame from:

{

'Name': ['Alice', 'Bob'],

'Age': [25, 30]

}

1. Add a new column 'City' with values ['Delhi', 'Mumbai'].
2. Change the index to ['emp1', 'emp2'].
3. Get the shape of the DataFrame.
4. Drop the column 'Age'.

**🔹 From NumPy Arrays**

1. Create a 2x3 numpy array and convert to DataFrame.
2. Add column names to the DataFrame created from numpy array.
3. Create a DataFrame from np.arange(12).reshape(3, 4).
4. Access the last row of the numpy-generated DataFrame.
5. Convert the DataFrame to a numpy array back.

**🔹 Mixed Tasks**

1. Create an empty DataFrame and then add a column.
2. Create a DataFrame from a list of tuples with column names.
3. Create a DataFrame from a scalar value repeated for 5 rows and 2 columns.
4. Create a DataFrame using dictionary with Series as values.
5. Create a DataFrame using .from\_dict() method with orient='index'.