Python Practice Questions: Functions

# A. User-Defined Functions (UDF) – 6 Questions

1. Create a function that takes a number and returns its square.

2. Write a function that takes a name and returns a greeting message like “Hello, John!”.

3. Create a function that accepts a list of numbers and returns only the even numbers.

4. Write a function to check whether a given string is a palindrome or not.

5. Create a function that calculates the factorial of a number (without using recursion).

6. Define a function that accepts a temperature in Celsius and returns it in Fahrenheit.

# B. Lambda Functions – 5 Questions

1. Write a lambda function to find the square of a number.

2. Use lambda to filter out all odd numbers from a list.

3. Use lambda to sort a list of tuples based on the second value: Example list: [(1, 2), (3, 1), (5, 0)]

4. Create a lambda function that multiplies three numbers.

5. Use lambda to convert a list of temperatures in Celsius to Fahrenheit: Celsius list = [0, 10, 20, 30]

# C. map() Function – 4 Questions

1. Use map() and a user-defined function to square all numbers in a list.

2. Use map() with lambda to convert a list of strings to uppercase.

3. Given two lists: [1, 2, 3] and [4, 5, 6], use map() to add the elements pairwise.

4. Given a list of names, use map() to add the prefix "Mr." or "Ms." to each name.