## Python Programs: Functions, Recursion, and Lambda (Titles Only)

## **Function-based Programs**

- 1. Calculate BMI
- 2. Convert Celsius to Fahrenheit
- 3. Check Prime Number
- 4. Factorial using function
- 5. Find maximum in list
- 6. Count vowels
- 7. Palindrome check
- 8. Sum of digits
- 9. Fibonacci series (loop)
- 10. Simple calculator

## **Recursion-based Programs**

- 11. Factorial using recursion
- 12. Fibonacci using recursion
- 13. Sum of n numbers using recursion
- 14. Count digits using recursion
- 15. Power of number using recursion
- 16. GCD using recursion
- 17. Sum of list using recursion
- 18. Reverse string using recursion
- 19. Check palindrome using recursion
- 20. Decimal to binary using recursion

## **Lambda Function-based Programs**

- 21. Square of a number using lambda
- 22. Even or odd using lambda
- 23. Maximum of two numbers using lambda
- 24. Sort list of tuples by second element using lambda
- 25. Filter even numbers using lambda and filter()
- 26. Map square of numbers using lambda and map()

- 27. Reduce to sum using lambda and reduce()
- 28. Convert to uppercase using lambda and map()
- 29. Check positive number using lambda
- 30. Multiply two numbers using lambda
- 31. EMI calculator using lambda
- 32. Leap year check using lambda
- 33. Age group classifier using lambda
- 34. Grading system using lambda
- 35. Simple interest using lambda
- 36. Area of circle using lambda
- 37. Perimeter of rectangle using lambda
- 38. Reverse string using lambda
- 39. Temperature conversion (F to C) using lambda
- 40. FizzBuzz using lambda