

25 Python Function-Based Coding Questions

1. Write a function to check if a number is even or odd.
2. Write a function to return the factorial of a number.
3. Write a function to reverse a string.
4. Write a function to check if a string is a palindrome.
5. Write a function to find the maximum of three numbers.
6. Write a function to count vowels in a string.
7. Write a function to return the sum of digits of a number.
8. Write a function to return Fibonacci series up to n terms.
9. Write a function to find GCD of two numbers.
10. Write a function to check if a number is prime.
11. Write a function to return the square and cube of a number.
12. Write a function to check if a year is a leap year.
13. Write a function to return the largest element in a list.
14. Write a function to count how many times a character appears in a string.
15. Write a function to merge two lists.
16. Write a function that accepts a list and returns it sorted without using sort().
17. Write a function to find duplicates in a list.
18. Write a function to return a dictionary of character frequencies in a string.
19. Write a function to calculate simple interest.
20. Write a function to check whether a string is an anagram.
21. Write a function to return a list of even numbers from a list.
22. Write a function that accepts a number and returns its binary equivalent.
23. Write a recursive function to calculate factorial.
24. Write a function to find the second largest number in a list.
25. Write a function to check if a list is sorted or not.

15 Python OOP (Object-Oriented Programming) Coding Questions

1. Create a class Person with attributes name and age, and display them.
2. Create a class Rectangle to calculate area and perimeter.
3. Create a class Student with a method to display grade.
4. Create a class with a private variable and show how to access it.
5. Implement a class BankAccount with deposit and withdraw methods.
6. Write a program using constructor (`__init__`) to initialize object attributes.
7. Demonstrate single inheritance with Animal and Dog classes.
8. Demonstrate multilevel inheritance.
9. Create a class with `@staticmethod` and `@classmethod`.
10. Overload the + operator in a class using `__add__`.
11. Override a method in child class (method overriding).
12. Demonstrate use of `super()` in a subclass.
13. Create a class that keeps count of how many objects are created.
14. Create a class with `__str__()` method and print the object.
15. Implement a class Employee with `get_salary()` method and create a child class Manager.