Python Practice Questions

■ Basic Level – 20 Questions

1. Create a list of 5 numbers and print the sum of all elements.
2. Find the maximum and minimum element in a given list.
3. Count how many even numbers are in a list.
4. Reverse a list without using reverse() or slicing.
5. Write a program to check if an element exists in a list.
6. Create a tuple with 10 numbers and print only the odd numbers.
7. Convert a tuple into a list and add a new element.
8. Write a program to count the frequency of each element in a list.
9. Write a program to check if a list is sorted or not.
10. Write a program to remove duplicates from a list.
11. Write a dictionary with names as keys and marks as values, then print all students who scored more than 50.
12. Merge two dictionaries into one.
13. Write a program to get the value of a key safely from a dictionary (use .get()).
14. Write a program to swap keys and values in a dictionary.
15. Create a dictionary of 5 students with their marks and find the student with the highest marks.
16. Write a program that checks whether a given number is positive, negative, or zero (if-elif-else).
17. Write a program that takes a number and prints whether it is divisible by 3 and 5 or not.
18. Write a program that takes a character and checks if it is a vowel or consonant.
19. Print multiplication table of a given number using a for loop.
20. Write a program to calculate factorial of a number using a for loop.

■ Intermediate Level – 20 Questions

1. Write a program to find the second largest element in a list.
2. Write a program to find the common elements between two lists.
3. Given a list, separate it into even and odd number lists.
4. Write a program to rotate a list by k elements.
5. Write a program to remove all occurrences of a given element from a list.
6. Write a program to find the most frequent element in a list.
7. Write a program to flatten a nested list (e.g., [1, [2, 3], [4, 5]] $\rightarrow$ [1,2,3,4,5]).
8. Write a program to check if a list is palindrome or not.
9. Write a program to sort a list of tuples by the second element.
10. Write a program to merge two sorted lists into one sorted list.
11. Write a dictionary program to count the frequency of words in a sentence.

12. Write a program to find keys in a dictionary with the maximum value.

13. Write a program to group a list of words by their first letter into a dictionary.

14. Write a program to check if two dictionaries are equal or not.

15. Write a program to create a dictionary from two lists (keys and values).

16. Write a program that checks whether a number is prime using if-else and loops.

17. Write a program that prints the Fibonacci sequence up to n terms.

18. Write a program that finds all numbers divisible by 7 but not by 5 between 1 and 100.

19. Write a program to find the factorial of a number using both iteration (for loop) and recursion.

20. Write a program that simulates a simple calculator (take two numbers and an operator +,-,*,/ using if-elif-else).