Python Programming Questions – LIST
Basic Level
1. Write a Python program to create a list of integers and print its elements.
2. Write a program to find the **sum and average** of all elements in a list.
3. Write a program to find the **largest and smallest** element in a list.
4. Write a Python program to **count the number of elements** in a list without using len().
5. Write a program to **reverse a list** without using built-in functions.
6. Write a program to **check if an element exists** in a list.
7. Write a Python program to **remove duplicate elements** from a list.
8. Write a program to **sort a list** in ascending and descending order.

Intermediate Level
9. Write a program to **merge two lists** and remove duplicates.
10. Write a program to **find common elements** between two lists.
11. Write a program to **split a list into even and odd numbers**.
12. Write a program to **rotate a list** by n positions.
13. Write a Python program to **find the second largest number** in a list.
14. Write a program to **flatten a nested list**.
15. Write a program to **count frequency of each element** in a list.
16. Write a program to **replace all negative numbers with zero** in a list.

Advanced Level
17. Write a program to **remove all occurrences of a given element** from a list.
18. Write a program to **check if a list is a palindrome**.
19. Write a Python program to **find missing numbers** in a given list of consecutive integers.
20. Write a program to **perform element-wise addition of two lists**.
21. Write a Python program to **find the longest increasing subsequence** in a list.
22. Write a program to **group elements based on frequency**.

Python Programming Questions – TUPLE
Basic Level
23. Write a Python program to **create a tuple and print its elements**.
24. Write a program to **find the length of a tuple**.
25. Write a program to **find the maximum and minimum** element in a tuple.
26. Write a program to **convert a tuple into a list**.
27. Write a program to **check if an element exists** in a tuple.
28. Write a program to **count occurrences of an element** in a tuple.

Intermediate Level
29. Write a program to **slice a tuple** and display the result.
30. Write a program to **find repeated elements** in a tuple.
31. Write a program to **merge two tuples**.
32. Write a program to **unpack elements of a tuple into variables**.
33. Write a Python program to **sort a tuple**.
34. Write a program to **convert a list of tuples into a dictionary**.

Advanced Level
35. Write a program to **find the index of an element** in a tuple.
36. Write a program to **remove an element from a tuple** (without directly modifying it).
37. Write a program to **find common elements between two tuples**.
38. Write a Python program to **check if a tuple is a palindrome**.
39. Write a program to **find the element with maximum frequency** in a tuple.
40. Write a program to **create a nested tuple and access its elements**.