Python Loop Assignment Questions - EURON

1. Print all elements of a list using a for loop.
2. Print all characters of a string using a for loop.
3. Use a while loop to print numbers from 1 to 10.
4. Use break to exit a loop when number is divisible by 7.
5. Use continue to skip printing even numbers from 1 to 10.
6. Use pass as a placeholder in a for loop with a condition.
7. Print numbers 1 to 5 and use else after the loop to print 'Done'.
8. Find the sum of all elements in a list using a loop.
9. Count how many numbers in a list are greater than 10.
10. Use enumerate to print index and value of a list of names.
11. Zip two lists (names and marks) and print name with mark.
12. Reverse a string using a loop and print the result.
13. Sort a list of numbers using sorted() and print.
14. Print all keys and values of a dictionary using loop.
15. Create a 3x3 matrix and print each element using nested loops.
16. Print only vowels from a given string using for loop and continue.
17. Write a while loop that continues until user types 'exit'.
18. Print all even numbers from 1 to 50 using a while loop.
19. Use loop with else to search an element in a list.
20. Use zip() to combine three lists: names, scores, and ages.
21. Write a program to print the factorial of a number using while loop.
22. Use nested for loop to generate multiplication table (1-5).
23. Create a dictionary of students and their scores, print passed students (score>=50).
24. Print list items in reverse using reversed() in a loop.
25. Sort a dictionary by its values and print key-value pairs.
26. Flatten a nested list using nested loops.
27. Find maximum and minimum in a list using loop (not built-in max/min).
28. Print all words from a string that start with vowel using loop idiom.
29. Count occurrences of a character in string using loop.

30. Print a square pattern of '*' of size 4x4:
Output:
****
****

****

****

31. Print a right-angled triangle pattern:

*

**

***

****

32. Print a pyramid pattern:

```
   *
  ***
 *****
*******
```

33. Print an inverted pyramid pattern:

```
*******
 *****
  ***
   *
```

34. Write a loop to check if a string is a palindrome.

35. Use loop with zip and condition to print matched elements only.

36. Print prime numbers between 1 to 100 using for-else logic.

37. Generate Fibonacci series using while loop until 100.

38. Use enumerate with condition to filter and print only odd indexed elements.

39. Print multiplication tables from 1 to 10 using nested loops.

40. Sort a list of tuples based on second element using sorted().

41. Write a program to count frequency of each word in a string using dict and loop.

42. Generate pattern:

1

22

333

4444

43. Print hollow square pattern:

*****

*   *

*   *

*****

44. Reverse a list using while loop without using reversed() or slicing.

45. Merge multiple lists using zip and display all combinations.
46. Print a diamond pattern:

```
  *
 ***
*****
 ***
  *
```

47. Loop through a matrix and print its transpose.
48. Use nested dictionaries and loops to display subject-wise marks of each student.
49. Implement bubble sort using nested loops and print each pass.
50. Given a matrix, calculate its row-wise and column-wise sum using nested loops.