Programming Tasks for Week-3 (Loops)

1. Write a program in C to print "Hello World" a hundred times.

2. Write a C program to print all positive integers from 1 to 100.

3. Write a C program to print all negative integers from -1 to -100.

4. Write a program to print "Hello World" ten times with serial numbers like:

    1. Hello World

    2. Hello World

    3. Hello World …

5. Write a C program to print all positive integers from 5 to 500.

6. Write a C program to print all even integers from 1 to 100.

7. Write a C program to print all odd integers from 1 to 100.

8. Write a C program to print all integers divisible by 7 between 55 and 155 (inclusive).

9. Run a loop from 1 to 100, but print the numbers from 1 up to 25 only. (do not use break or continue)

10. Run a loop from 5 to 105, but print the numbers from 5 up to 25 only. (use break)

11. Run a loop from 5 to 105, but print the numbers from 5 up to 25 only. (use continue)

12. Run a loop from 1 to 100, but print the numbers from -1 to -100.

13. Write a C program to print all positive integers from 100 to 1.

14. Write a C program to print all even integers from 1 to 100 in reverse order. [100, 98, 96, ……, 2]

15. Write a C program to print the following series: 5 10 15 20 25 30 35 40 …… 500

16. Write a C program to print the following series: 2, 4, 8, 16, …… (up to 100)

17. Write a C program to print the following series: 1000, 500, 250, 125, ….., 0

18. Take an integer number as input and print out its times table (multiplication table) as output.

Sample input: **5**

Sample output:

5x1=5

5x2=10

5x3 =15

………..

……….

5x10=50

19. Take input two integers **a** and **b** where both **a** and **b** are positive. Write a C program to print all natural numbers from a to b if a <= b, or b to a if b <=a.

20. Write a C program to print the sum of all natural numbers from 1 to 100.

21. Write a C program to calculate the sum of the following series: (take n as input)

$$1^2 + 2^2 + 3^2 + 4^2 + 5^2 +….. + n^2$$

22. Write a C program to print the sum of *cubes* of all natural numbers from 1 to n.

23. Write a C program to take a hundred integers as input using scanf() and output the number of even numbers among them.

24. Write a C program to take a hundred integers as input using scanf() and output the sum of them.

25. Write a C program to take a hundred integers as input using scanf() and output the largest of them.

26. Write a C program to take a hundred integers as input using scanf() and output the average of them in decimal up to two decimal points.

27. Write a C program to print all letters in the English alphabet.

28. Write a C program to take a hundred English letters as input using scanf() and output the number of vowels and consonants among them.

29. Write a C program to take a hundred characters as input using scanf() and output the number of uppercase letters, lowercase letters, digits, and special characters among them.

30. Write a C program to take five English letters as input using scanf() and toggle the letters while outputting them. [toggle = flipping the case]

Sample Input: Fahim

Sample Output: fAHIM