Everest Engineering College

Sanepa-2, Lalitpur

Subject: Programming in C

Date of Distribution: . . . . . .
Date of submission: . . . . . .

Lab 4

Title: Nested Loop

Objective:

- To be familiar with nested loop
- Using of nested loop to generate pattern and solve series problems

Theory:

- Nested Loop

Lab Exercises:(Please code yourself and show the output to the instructor)

Write a program to print the following pattern.

Type -1

1 1 2 1 2 3	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5
1 2 2 3 3 3 4 4 4 4 5 5 5 5 5	* * * * * * * * * *
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Type 1.1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 11 21 31 41 51 61 71 81 91 101 111 121 131 141
1 2 3 4 5 2 4 6 8 10 3 6 9 12 15 4 8 12 16 20 5 10 15 20 25	

Type 1.2

1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	1 2 2 3 3 3 4 4 4 4 5 5 5 5 5 5
* * * * * * * * * * * * * * *	

Type 2

1 2 3 4 5 1 2 3 4 1 2 3 1 2 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
5 5 5 5 5 4 4 4 4 3 3 3 2 2 1	* * * * * * * * * * * * * * * *

Type 3

5 4 3 2 1

5 4 3 2

5 4 3

5 4

5

WAP to find the sum of series.

$1^2 + 2^2 + 3^2 + 4^2 + 5^2 + 6^2 + \ldots\ldots\ldots\ldots + n^2$

What will be the sum of the given series.

$$1 + \frac{1}{x} + \frac{1}{x2} + \frac{1}{x3} + \frac{1}{x4} + \ldots\ldots\ldots + \frac{1}{xn}$$

Write a program to generate the following series and print the sum.

1x4 2x7 3x10 4x13 . . . . . n terms

What will be the sum of the given series

$$1 + x + \frac{x2}{2!} + \frac{x3}{3!} + \frac{x4}{4!} + \ldots\ldots\ldots + \frac{xn}{n!}$$