

LAB SHEET #5

Title: looping in c programming Objective(s):

- To understand the programming using Loop & nested loop Statements (for, while, do-while)

Theory: Write short theory on repeated structure (looping) and discuss about while, do... while and for loop with syntax and flowchart. Also write short theory about break statement, continue statement and goto statement.

Write a program to find sum as Y of the following series excluding prime numbers in the series.

$$Y = 1 + \frac{1}{1!} + \frac{2}{2!} + \frac{3}{3!} + \dots + \frac{10}{10!}$$

Algorithm:

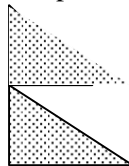
Flowchart: Code:

Output (Compilation, Debugging and Testing):

Discussion and Conclusion:

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

1. Write a program to input two integer numbers and display the sum of even numbers and squares of odd numbers. between these two input numbers. (if user enters 4 and 11 then , sum = $4 + 5^2 + 6 + 7^2 + 8 + 9^2 + 10 + 11^2$).
2. Write a program to find GCD (great common divisor or HCF) and LCM (least common multiple) of two numbers.
3. Write a program to display Fibonacci series up to last 60th term.
4. Write a program to check if the entered number is Armstrong or not? (An Armstrong number of three digits is an integer such that the sum of the cubes of its digits is equal to the number itself. Eg. $1, 1 = 1^3$ and $153, 1^3 + 5^3 + 3^3 = 153$)
5. Write a program to check if the entered integer number is palindrome or not?(A number is palindrome if its reverse number is equal to itself eg. 121,131,1,2,3,12321 etc)
6. Write a program to display the flag of Nepal using symbolic/HEX character in C.



7. Write a program to display the following.

a.



b.

1				
1	4			
1	4	9		
1	4	9	16	
1	4	9	16	25

c.



d.

1	6	10	13	15
2	7	11	14	
3	8	12		
4	9			
5				