

LAB-9

Loops

(From: 24/09/2015 to 03/10/2015)

- 1 Write a program to print all the ASCII values and their equivalent characters using a while loop. The ASCII values vary from 0 to 255. Use formatting options with **printf** to display ASCII values and corresponding characters in a tabular form.
- 2 Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (For example x and y are input variables and output is x^y)
- 3 Write a program to find input number is Prime or not.
- 4 Write a program to read a number N and print all its divisors.
- 5 Write a program to find that given number is perfect number or not.
- 6 Write a program for computing factorial N ($N!$)
- 7 Write a program that accepts N numbers as an input and print sum and average of N numbers.
- 8 Write a program for computing the sum of digits in a number.
- 9 Write a program to find that given number is Armstrong number or not.
- 10 A five-digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not.
- 11 Write a program to find that given number is palindrome or not.
- 12 Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.
- 13 Write a program that accepts a number N as an input and displays all prime numbers less than N. (Use break and continue statement to improve efficiency of the program)
- 14 The natural logarithm can be approximated by the following series. If x is input through the keyboard, write a program to calculate the sum of first seven terms of this series.
$$(1-x)/x + \frac{1}{2}((x-1)/x)^2 + \frac{1}{2}((x-1)/x)^3 + \dots\dots\dots$$