Lab Report Assignment (CSE-113) for 2017 Batch

Section 1 (any five)

1. Write a program to find the area and circumference of a circle.
2. Write a program that converts temperature from Fahrenheit to Celsius and vice-versa.
3. Write a program to find all possible roots of a quadratic equation.
4. Write a program to find the factorial of an integer.
5. Write a program in C to determine and print the sum of the following harmonic series for a given value of n: $1 + \frac{1}{2} + 1/3 + \frac{1}{4} + \dots\dots\dots\dots\dots\dots + 1/n$.
6. Write a program that takes an integer as input and display it in reverse order.
7. Write a program to find the first n Fibonacci numbers.

Section 2 (any four)

1. Write a program that reads an integer number from keyboard and determines whether it is a prime number or not.
2. Write a program to convert any integer to its binary equivalent.
3. Given an integer number, write a program that displays the number as follows:
   First line   : all digits
   Second line   : all except first digits
   Third line : all except first two digits
   ………………..
   Last line   : The last digit.
   For example, the number 5678 will be displayed as:
   5 6 7 8
   6 7 8
   7 8
   8
4. Write a program in C that prints the smallest of the three numbers.
5. Write a program in C to compute the sum of the digits of a given integer number. For example, if the input number is 123 then output should be 6.
6. Write a program to evaluate the expression upto n using user defined function:
   $f(x) = x - x^3/3! + x^5/5! - x^7/7! + \dots\dots \ x^n/n!$

Section 3 (any three)

1. Write a program to multiply two matrices.
2. Write a program to initialize all the diagonal elements of a two dimensional array to 1 and others to 0.
3. Write a program that reads a string from keyboard and determine whether it is a palindrome or not.
4. Write a program to concatenate the three arrays namely firstname, secondname and lastname into one string to be called name.

Section 4 (all)

1. Write a program using pointers to compute the sum of all elements stored in an array.
2. Write a program to read data from keyboard, write it to a file named INPUT and again read the same data from the file INPUT and display the data on the screen.
3. Write a program that appends one file at the end of another.

[Total 15 Problems must be Solved for the Lab Report]