Computer Science & Engineering
E1- SEM-I
PPS LAB WEEK – III

Intructions :
i) For each program maintain a document, it should include as follows
a. Problem statement
b. Algorithm (Flowchart / Pseudo code)
Note : Mandatory to write in observation notes and evaluate the algorithm.
c. Implementation (Program in c language)
d. Input/Output(Mnimum 3 inputs and outputs)
e. Observations
ii) All the inputs required for the program must be read from key board.

1. Write a C program to read two integers and perform addition, subtraction, multiplication and division on selecting +, -, * and / consecutively.
Note: Use switch case
sample Input : enter two integers: 300 400
enter operation : +
output: 700

2. Write a C program to display first 'N' natural numbers.
Sample Input : N 10
Output : 1 2 3 4 5 6 7 8 9 10

3. Write a C program to display sum of first 'N' natural numbers.
Sample Input : N = 5
output: 15

4. Write a C program to find sum of first 'N' odd numbers starting with 0 and even numbers seperatly.
Sample Input: Enter N value 5
output: sum of even : 30
sum of odd : 25

5. Write a C program to print Mulitpication table of a given Integer.

Sample Input : 5
output : 5 * 1 = 5
5 * 2 =10
- - -
- - -
5 * 10 = 50

6. Write a Program to check the given input number is Prime or not.

Sample Input : 4
Out put : Not a prime

7. Write a program to print all Prime numbers below given range 'N'.
Sample input: 10
Output: 2 3 5 7

8. Write a C program to check whether the given integer is Palindrome or not.
Note : Palindrome is the number which has no change in its value even after reversal.
Example : Sample Input : 121
Out put : It is palindrome
Input : 123
Out put : It is not a palindrome

9. Write a program to print all palindrome numbers below the given range 'N'.

10. Write a C program to check whether the given number is perfect number or not.
Hint : perfect number is the one , whose sum of its multiplicants is equal to the number.

Ex., 6 is a perfect number and its multiplicants are (1,2,3) (1 + 2+ 3 = 6)

11. Print all perfect numbers below the given range 'N'.

12. Write a program to find addition of two numbers without using '+' (binary operator).

13. Write a program to print Fibonacci series for first 'n' numbers.

Example Input : N value 10
Output Series : 0 1 1 2 3 5 8 13 21 34

14. Write a program to print the out put as follows
Input : 5
output -1 :

```
1
1 2
1 2 3
1 2 3 4
1  2 3 4 5
```

Out put -2 :

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

15. Write a C program to print out put as follows

Input : 5
Output :