PG/IS/ELC-105/12(Pr.)

M.Sc. 1st Semester Examination, 2012

ELECTRONICS

(*Computation Lab.*)

(Practical)

PAPER – ELC-105

Full Marks : 50

Time : 3 hours

Answer any **one** question, selecting it by a lucky draw.

1. Write a program in 'C' to find the value of exp (x) with the help of exponential series.

2. Write a C program to generate fibonacci series upto 100.

3. Write a C program to compute the area and perimeter of a circle.

4. Write a C program to compute the area of a triangle.

5. Write a C program to determine and print the sum of the following harmonic series for a given value of n.

$$1+\frac{1}{2}+\frac{1}{3}+.....+1/n.$$

The value of n should be given interactively through the terminal.

6. Write a C program to print the following output.

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

7. Write a C program that will read a positive integer and determine and print its binary equivalent.

8. Write a C program by using a recursive calls to evaluate

$$f(x) = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \ldots.$$

9. Write a C program to check a number whether it is Armstrong or not.

10. Write a C program to exchange of two variables without using third variable.

11. Write a C program to check a year whether it is leap year or not.

12. Ten numbers are entired through the keyboard to an array. Write a program in 'C' to sort the array in ascending order.

13. Any positive integer is input through the keyboard. Write a program in 'C' to find out whether it is a prime number or not.

14. Write a program in 'C' to find the smallest number from an array of 'n' numbers.

15. Write a program in 'C' to find the value of exp (x) with the help of exponential series.

Distribution of Marks

Program	:	10 Marks
Execution	:	20 Marks
Discussion and Accuracy	:	05 Marks
Viva	:	10 Marks
Laboratory Note Book	:	05 Marks
Total	:	50 Marks