PG/IS/ELC-105/19 (Pr.)

M.Sc. 1st Semester Examination, 2019

ELECTRONICS

(*Computation and Programming Laboratory*)

[Practical]

PAPER–ELC-105

Full Marks : 50

Time : 3 hours

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

The questions are of equal value

1. Write a program in 'C' to check a year whether it is leap year or not.

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

3. Write a program in 'C' to convert a decimal integer into it's quivalent binary form.

4. Write a program in 'C' to check a number whether it is a palindrome or not.

5. Write a program in 'C' to sort an array of 'n' numbers in descending order considering Bubble sort technique.

6. Write a program in 'C' to find out whether a number enter through keyboard is prime or not.

7. Write a program in 'C' to generate Fibonacci series upto 'n' terms. Where 'n' should enter through keyboard.

8. Write a program in 'C' to convert a binary number to its decimal equivalent.

9. Write a program in 'C' to check a number whether it is odd or even.

10. Write a program in 'C' to sort an array of 'n' numbers in ascending order considering Bubble sort technique.

11. Write a program in 'C' to find the value of sin (X) with the help of sine series considering the accuracy of ·000001 and also find the number of terms calculated to achieve the derived accuracy.

$$\sin(X) = x - \frac{x^3}{\lfloor 3} + \frac{x^5}{\lfloor 5} - \frac{x^7}{\lfloor 7}.$$

12. Write a program in 'C' to obtain the sum of the first N terms of an A.P series.

13. Write a program in 'C' to find the value of exp(X) with the help of exponential series considering the accuracy of ·000001 and also find the number of terms calculated of achieve the desired accuracy.

$$e(X) = 1 + x + \frac{x^2}{\lfloor 2} + \frac{x^3}{\lfloor 3} + \cdots \frac{x^n}{\lfloor n}.$$

14. Write a program in 'C' to obtain the sum of the first N terms of a G.P series.

15. Given two $m \times n$ A and B matrices are given. Write a program in 'C' to calculate $A + B$ and $A - B$.

Distribution of Marks	
Program	10 Marks
Execution	20 Marks
Discussion & Accuracy	05 Marks
Viva Voce	10 Marks
Laboratory Note Book	05 Marks
Total :	50 Marks