2016

M.Sc.

1st Semester Examination

ELECTRONICS

PAPER—ELC-105

(PRACTICAL)

Full Marks : 50

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

(*Computation & Programming Laboratory*)

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 considering the accuracy of 0.000001 and also find the number of terms calculated to achieve the desired accuracy.

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

3. Write a program in 'C' to check a number whether it is Armstrong or not.

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

5. Write a program in 'C' to evaluate the first 20 terms of the following series :

$$x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots$$

6. Write a program in 'C' that will read a positive integer and determine its binary equivalent.

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

8. Write a program in 'C' to find the roots of a quadratic equation where the coefficient a, b and c must be entered through keyboard.

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

10. Write a program in 'C' to find the value of cos(x) with the help of cosine series considering the accuracy of 0.000001 and also find the number of terms calculated to achieve the desired accuracy.

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

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

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

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

15. Write a program in 'C' to find the sum of the following series :

$$1+\frac{1}{3}+\frac{1}{5}+\frac{1}{7}+\cdots \text{ upto 10 th term.}$$

16. Write a program in 'C' to find the value of ${}^{n}C_{r}$ where the values of n and r would be provided by the examiner.

17. Write a program in 'C' to print all the prime numbers between a given range.

18. Write a program in 'C' to read 10 integers. Print all the prime nos. from these inputs.

Distribution of Marks

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