

M.Sc. 1st Semester Examination, 2015

ELECTRONICS

(Computation Laboratory)

(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 check if an integer is prime or not.**

(Turn Over)

(2)

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

$$1 + \frac{1}{3} + \frac{1}{5} + \frac{1}{7} + \dots \text{ up to 10th term.}$$

3. Write a program in C which will read an decimal integer from keyboard and determines it's length.
(e.s. if input is 123, output will be 3).
4. Write a program in C to find the value of $\sin(x)$.
The value of x would be provided in radian by the examiner.
5. Write a program in C to determine the value of e^x .
Use at least six terms to do so.
6. Write a program in C to search an integer in an array.

(3)

7. Write a program in C to sort a list of integers. The values would be provided by the examiner.

(Use any of the sorting techniques of your choice).

8. Write a program in C to determine the factorial value of a given integer.

9. Write a program in C that will read an integer from keyboard and provide the following sequence :

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

10. Write a program in C to reverse an integer.

(e.g. : If input is 12345, output should be 54321).

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

$$1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \dots$$

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

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

$$1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \dots$$

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