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UG/2nd Sem/Elec./H/19 (Pr.)

2019

B.Sc.

2nd Semester Examination  
**ELECTRONICS (Honours)**

Paper - C4P

(C Programming and Data Structures Lab)

[Practical]

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

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

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

( 2 )

2. Write a program in 'C' to find out whether a member enter through keyboard is prime or not.
3. Write a program in 'C' to evaluate the first 20 terms of the following series :

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

4. 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.
5. 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 numbr of terms calculated to achieve the desired accuracy.

( 3 )

6. Write a program in 'C' to find the largest number from an array of 'n' numbers.
  
7. Write a program in 'C' to sort an array of 'n' members in descending order considering Bubble Sort theorem.
  
8. Write a program in 'C' to determine the factorial value of a given integer.
  
9. Write a program in 'C' to convert a binary number to its decimal equivalent.
  
10. Write a program in 'C' to find the sum of the following series :

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

( 4 )

**Distribution of Practical Marks :**

Experiment :	15
Laboratory Note Book :	02
Viva-voce :	03
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Total	20 Marks