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**NEW SCHEME**

**I/II Semester B.E. Degree Examination, Dec.06/Jan. 07  
Common to all Branches**

**Computer Concepts and C Programming**

Time: 3 hrs.]

[Max. Marks:100

*Note: Answer any FIVE full questions selecting at least TWO full questions from each part.*

**PART A**

- 1 a. With a neat diagram, explain the functional organization of a digital computer. (10 Marks)  
b. Discuss the operation of the following devices (10 Marks)  
i) Pen ii) Game Controller iii) Touch Screen.
- 2 a. With examples define data and information. (10 Marks)  
b. Distinguish between primary memory and secondary memory. Give examples. (10 Marks)
- 3 a. Briefly explain the classification of operating systems, with examples of each. (08 Marks)  
b. Explain the features of LINUX operating system. (06 Marks)  
c. With the help of an example, illustrate how e-mails are sent and received. (06 Marks)
- 4 a. Discuss the various simple data types supported in C language. Mention their range and size. (08 Marks)  
b. Classify operators in C language based on number of operands. Give suitable examples. (06 Marks)  
c. Compare and contrast algorithms and flow charts. (06 Marks)

**PART B**

- 5 a. Write a C program to find whether given number is prime or not. Output the given number with suitable message. (08 Marks)  
b. Explain the following with examples and flow chart. (12 Marks)  
i) Simple 'if'                      iii) 'Nested if'  
ii) 'Go to'                              iv) 'if ... else' ladder.
- 6 a. With syntax, flow chart and example, explain the working of 'for' loop. (08 Marks)  
b. Write a program using 'while' loop to compute the following series. (08 Marks)  
 $1 + x + x^2 + \dots + x^n$  for a given value of n.  
c. Write a note on using 'go to' in loops. (04 Marks)
- 7 a. Write a C program to generate Fibonacci numbers using arrays. (12 Marks)  
b. Write a C program to read n elements of a one dimensional array and find the largest of them. (08 Marks)
- 8 a. Discuss the necessity of user defined functions in developing a program. (08 Marks)  
b. Write a function that finds the smallest of 4 numbers in an array n. Use it in a main function to find the smallest of arrays A, B, C and D each with 4 elements. (12 Marks)

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