B. Tech Degree I & II Semester (Combined) Examination June 2013

IT/CS/EC/CE/ME/SE/EB/EI/EE/FT 1108 COMPUTER PROGRAMMING
(2012 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART A
(Answer *ALL* questions)

(8 x 5 = 40)

I. (a) Explain the categories of software.

(b) Write notes on the role of Information Technology.

(c) Distinguish between compiler and interpreter.

(d) Give the syntax of scanf ( ) statement and list out any four format specifiers.

(e) Distinguish Break and Continue statements with examples.

(f) What are function prototypes? What are their functions?

(g) What are enumerated data types? Give examples.

(h) Explain the importance of pointers in C language.

PART B

(4 x 15 = 60)

II. Explain the working of a digital computer system with a neat diagram. (15)

OR

III. (a) Discuss the functions of an operating system. (7)

(b) Provide the guidelines for drawing a flowchart. Also explain the commonly used flowchart symbols. (8)

IV. (a) Explain the steps involved in the execution of a program. (7)

(b) What are constants in C language? Explain different types of constants with examples. (8)

OR

V. (a) Discuss the various categories of operators available in C. Also explain operator precedence and associativity. (7)

(b) Write a C program to print even numbers from 1 to 100. (Give flow chart). (8)

VI. (a) Explain the use of switch statement. Give format and example. (7)

(b) Write a C program to sort N names alphabetically. (Only program required) (8)

OR

VII. (a) Describe FOR and WHILE loop constructs with syntax and examples. (7)

(b) What is recursion? Write a C program that uses a recursive function to compute the value of nth Fibonacci number. (8)

VIII. (a) Differentiate pointer to an array and array of pointers with examples. (7)

(b) Write a C program that counts the number of characters and number of lines in a file. (8)

OR

IX. (a) Explain the use of the following terms with examples. (8)

  (i) Nested structures

  (ii) Array of structures

(b) What are pointers to functions? Explain with example. (7)

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