R-8

S.B. Roll No. _____

Computer Programming and Applications
3rd Exam/ECE/ETV/EMP/6160/Dec'09

Duration: 3 Hrs.   M.Marks: 75

Section - A

1.(a) Name and describe four data types in 'C'.   1.5

(b) What are the commonly used input/output functions in 'C'? How are they accessed?   1.5

(c) What is meant by looping? Describe two forms of looping.   1.5

(d) State several advantages to the use of functions.   1.5

(e) In what way an array differ from an ordinary variable?   1.5

(f) What is meant by the address of a memory cell? How addresses are usually numbered?   1.5

(g) What is a structure? How does a structure differ from an array?   1.5

(h) What is the primary advantage to using a data file?   1.5

(i) What is the purpose of do-while statement? How does it differ from the while statement?   1.5

(j) What do you understand by recursion?   1.5

Section B
Attempt any five questions from this section.

2. What are the various control structures available in C language? Give syntax of each control structure.
   6

3. Write a program in 'C' language to to find the armstrong numbers<1000. A number is called armstrong number if $I^3 + J^3 + K^3 = 100 *I +10 *J + K$.   6

4. Write a program in C language to find the maximum in a given series of data.
   6

5. Write a program C language to generate fibonacci series upto 1.50 terms.   6

6. Write a recursive function to compute the factorial of a given number.   6

7. How is multidimensional array defined in terms of an array of pointers? What does each pointer represent? How does this definition differ from a pointer to a collection of contiguous arrays of lower dimensionality?

Section C
Attempt any three questions

8. Write a program in C language to sort the given list in ascending order.   10

   or

   Write a program in C language to sort the given list in descending order.   10

9. Differentiate between following
   (a) Array and a Structure
   (b) Call by value and call by reference
   (c) for.. loop and while loop
   (d) Pointer and a file   10

10. Write a Program in C language to add two matrices.   10

11. Write a program in C language to convert the given string in uppercase.   10

    Write a function that will calculate and display the roots of a quadratic equation.   10