MCS-011

MCA (Revised)/BCA (Revised)

Term-End Examination

June, 2014

MCS-011 : PROBLEM SOLVING AND PROGRAMMING

Time : 3 hours *Maximum Marks : 100*

(Weightage 75%)

Note : *Question Number 1 is **compulsory**. Answer **any three** questions from the rest.*

1. (a) Write an algorithm and draw corresponding flowchart to calculate the factorial of a given number. **10**

   (b) Using recursion, generate 'n' terms of fibonacci series (n > 0). **10**

   (c) Using file handling, create a file, insert some characters and count them. **10**

   (d) Using pointers concept, reverse a given string. **10**

2. (a) Write a program to find the string length without using strlen () function. **10**

   (b) Write a program using C to calculate the Net salary if the basic, TA, DA, allowances and deductions are given, using structures concept. **10**

3. (a) What is the use of *continue* statement ? **5**
        Explain with an example.
    (b) Explain any four string functions with **10**
        example for each.
    (c) How will you write a function with no **5**
        arguments and with return value ? Give an
        example.

4. (a) Write a program to swap two values, using **10**
        cell-by-value method.
    (b) Write a program in C to multiply two **10**
        matrices A and B.

5. (a) Write a macro to display the string COBOL **10**
        in the following pattern.
        C
        C O
        C O B
        C O B O
        C O B O L
    (b) Define a macro to find maximum among of **10**
        3 given numbers using # ifdef, # else.