MCS-011

MCA (Revised) / BCA (Revised)
Term-End Examination
07464 December, 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) Design an algorithm and draw a corresponding flow chart and write a C program to divide two numbers. *10*

   (b) What are the rules for naming variables in C ? *5*

   (c) Write a program to search in an already created file "xyz.dat" which contains students' data and update it.
   Hint : Use file handling concept. *10*

   (d) Write a program to calculate the first smallest divisor of a number *using break* statement. *5*

   (e) Write a program in C to swap the values of two variables using pointers concept. *10*

2. (a) Write a program that initialises 3 names in an array of strings and displays them. *5*

(b) What is call by value ? Give example. *5*

(c) Explain recursion program with a suitable example. *10*

3. (a) Write a program to print first 10 even numbers using *goto* statement. *5*

(b) Explain Function Prototypes with an example for each. *10*

(c) Write a program to perform the comparison of two strings (use string function). *5*

4. (a) Write a program in C to sort list of n integers, using any of the sorting algorithms. *10*

(b) Write a program to test whether the given string is a palindrome or not. *10*

5. (a) Write a macro to demonstrate #define, #if, #else preprocessor commands. *10*

(b) Write a C program using fread() and fwrite() to create a file of records and then read and print the same file. *10*