67042

M.C.A. 1st Sem. w.e.f. Dec. 2012 with New Notes (Current Scheme) Examination–December, 2014

Computer Fundamentals & Programming in C

Paper-MCA-102

Time : 3 hours   *Max. Marks : 80*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Question No. **1** is **compulsory** and attempt **four** more questions selecting **one** question from each unit. All questions carry equal marks.

1. Write short notes on the following :

   (a) System software

   (b) Types of operating system

(c) Computer crimes

(d) Decision tables

(e) Use of comma operator

(f) Character search using array

(g) Dynamic memory allocation

(h) Debugging

Unit-I

2. Explain the relationship between loader, linker, compiler and interpreter with the help of suitable examples.

3. Explain the component of central processing unit with various buses.

Unit-II

4. Draw a flow chart for finding the roots of a quadratic equation. Also write a pseudo code for the problem of finding the greatest of three numbers.

5. What do you mean by algorithm. Also write its characteristics and write an algorithm for finding the factorial of a number.

Unit-III

6. Write a program for swapping of two numbers using call by value and call by reference. Also discuss the prototyping of a function.

7. Explain the different types of storage classes with examples.

Unit-IV

8. Differentiate between structure and union with suitable examples. Also write a program in C for entering the detail of 10 students (Name, Roll No. and Marks) by user and then display using structure.

9. What do you mean by files ? Write various modes of a file. Also write a program for finding the no. of lines, no. of space, no. of characters in a file.