B.Tech. (2007-2010 Batches) (Sem.–1,2)
FUNDAMENTALS OF COMPUTER PROGRAMMING & INFORMATION TECHNOLOGY
Subject Code : CS-101
Paper ID : [A0127]

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C. have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.**
4. **Select atleast TWO questions from SECTION - B & C.**

SECTION-A

l. **Write briefly** :

a) What is the difference between the terms Abstraction and Encapsulation?

b) What is the difference between Application and system software?

c) Name various application services of Internet.

d) What do you understand by Auxiliary memory and its need?

e) Define the term polymorphism.

f) How files are different from Arrays?

g) What is virtual function?

h) Differentiate between ALU and CU.

i) Describe the mail merge feature of MS-WORD.

j) Define the term Constructor and destructor.

SECTION-B

2. Draw block diagram of the computer. Describe its various components and write the different characteristics of the computer. (8)

3. i) Differentiate between primary and secondary storage devices.

   ii) What is operating system? Name any two operating systems. List the key features of Windows operating system. (4,4)

4. What do you understand by the term Computer Peripheral? Name various commonly used computer peripherals and explain in detail the working of any one. (8)

5. Name various commercial/open source text processing software available in Market and discuss the key features of MS-WORD. (8)

SECTION-C

6. State the rules to declare one dimensional arrays in C++. Write a program in C++ to read a set of numbers , store it in an one dimensional array A ; Copy the elements in another array B in the reverse direction; find the sum of individual elements of array A and B ; store the results in third array C. (8)

7. What is inheritance? How it is achieved in C++? Discuss the use of inheritance and list the merits and demerits of single inheritance over multiple inheritances. (8)

8. What is operator overloading and its need? Define a class string and overloaded equality operator (= =) to compare two strings. (8)

9. i) What are random files and how these are defined and accessed in C++?

   ii) Write short note on Information technology and its applications. (4,4)