B.Tech. (2011 Onwards) (Sem.–1,2)
FUNDAMENTALS OF COMPUTER PROGRAMMING AND IT
Subject Code : BTCS-101
Paper ID : [A1108]

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 short notes on :**

(a)   How two dimensional arrays are declared and initialized?

(b)   What are the different types of Computer Languages?

(c)   What is the difference between break and continue statement?

(d)   What is Access Specifier and its use?

(e)   Name various control statements of C++.

(f)   What do you mean by Precedence and Associativity.

(g)   Define the term private and protected Inheritance?

(h)   List the Key features supported by a GUI based Operating system.

(i)   Name various (at least four) standard classes of C++.

(j)   What is Virtual Memory and its use?

SECTION-B

2. Discuss in brief the various features provided by any word processor. Also define the terms: Toolbar and Status bar. How can we Activate or Deactivate any toolbar?

3. Compare and contrast the terms CD, DVD and Blu-ray disk.

4. Briefly explain the term Internet and the ways to connect to Internet. Also discuss the four most popular services of Internet.

5. What do you mean by the term Data type? Explain in detail the various Data types supported by C++ along with their memory requirements.

SECTION-C

6. What is a Constructor? How is it defined and when is it called? Also discuss various types of constructors used in C++ programs.

7. (a) What are Functions? Write a function to find maximum of three numbers.

   (b) Define the term Pointer. Write a program to compare the two given strings using a pointer.

8. (a) Explain how a data Member and member functions of a base class can be accessed by the derived class member functions.

   (b) What is meant by Membership operator in C++?

9. What is Random Access File and how it is defined in C++? Write a program to read students' record such as *name, roll no, height and weight* from a specified file and to display in sorted order using roll no as a key for sorting.