Roll No.

Total Pages : 03

J-FB-22-00199

B. Tech. EXAMINATION, 2022

Semester 1 (CBCS)

COMPUTER FUNDAMENTALS
& PROGRAMMING IN C++

CS-101

Time : 3 Hours   *Maximum Marks* : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary continuation sheet will be issued

Note : Attempt *Five* questions in all, selecting *one* question from each Sections A, B, C and D. Q No 9 is compulsory

Section A

1. Draw the block diagram to illustrate basic organization of computer system and explain the function of various units.   10

2. What is Programming Language ? What are various types of computer language ? Explain the characteristics of each of them.   10

Section B

3. What is a number system in computer science ? Explain in detail with the help of examples. Why is the number conversion necessary ?   10

4. Explain the memory hierarchy in detail with the help of relevant diagram https://www.hptuonline.com 10

Section C

5. What is the need of data types in C++ ? Describe different data types along with their representations and size in C++.   10

6. Draw the diagram to represent the basic structure of a programming C++ and write a program to Swap two numbers   10

Section D

7. What is the need of array ? Discuss different types of arrays and write C++ program to find sum of an array elements   10

8. Explain the different control statements in C++ with their syntax   10

(Compulsory Question)

9. Write short notes on the following $2 \cdot 10 = 20$

   (a) Operating System

   (b) Compiler and Interpreter

   (c) Cache Memory

   (d) Increment and Decrement Operator

   (e) Switch Case

   (f) Structure

   (g) Function

   (h) Type Casting

   (i) BCD

   (j) Tokens

(2-02-16)W-J-FL