15005

B. Tech 1st Semester Examination

Computer Fundamentals & Programming in C++ (CBS)

CS-101

Time : 3 Hours   Max. 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 any one question each from Sections A, B, C and D. Section E is compulsory. Each Section carries 12 marks.

SECTION - A

1. (a) What is Software? What are different types of software? Explain with examples.

   (b) Explain the needs and functions of Operating system in detail.   (6+6=12)

OR

2. Explain the block diagram and various components of computer in detail with the help of neat and clean diagram.   (12)

SECTION - B

3. Describe the various types of memory in depth. Which one is the fastest type of memory?   (12)

OR

4. What is the significance of BCD and ASCII codes in computer programming?   (12)

SECTION - C

5. (a) What is switch statement?

   (b) Write a menu driven program in C++ to calculate addition, subtraction, multiplication and division of two integers using switch statement.   (6+6=12)

OR

6. What are various types of operators available in C++? Explain by giving syntax and examples.   (12)

SECTION - D

7. Differentiate between call by value and call by reference with the help of C++ code.   (12)

OR

8. Write a program in C++ to search an element in an array and to find maximum and minimum element from an array using functions.   (12)

SECTION - E

9. (a) What are arrays?

   (b) Define the term keyword?

   (c) What is the use of break statement?

   (d) How increment operator works?

   (e) Differentiate between RAM and ROM

   (f) Name any ternary operator.

   (g) What are header files?

   (h) Define compiler

   (i) What is assembly level language?

   (j) How structure is different form array?

   (k) What is difference between "=" and "=="?

   (l) Define booting.   (12×1=12)