

Dec-25-0169

CS-101 (Computer Fundamentals & Programming in C++)

B.Tech. 1st & 2nd (CBCS)

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 : Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C & D of the question paper and all the sub-parts of the question in section E.

SECTION - A

1. (a) Define Computer. Also, explain the various features of computer system. (5)
(b) Explain, in detail, the history of computer. Also explain the evolution process of it. (5)
2. What is an Operating System? Explain the need and functions of operating systems. (10)

SECTION - B

3. Explain the characteristics of following number systems:
(a) Decimal Number System
(b) Octal Number System
(c) Hexadecimal Number System
(d) Binary Number System (4×2½=10)
4. (a) What is RAM & ROM? Differentiate between both. (5)
(b) What do you understand by secondary memory? (5)

SECTION - C

5. (a) What is the need of data types in C++? Describe different data types along with their representations and size in C++.
(b) What do you mean by operator precedence? (5)
6. Define token. What are the different tokens used in C++? Explain each of them with suitable example. (10)

SECTION - D

7. (a) Write the general form of function. Explain the different types of argument passing techniques with example. (5)
(b) Discuss function prototyping, with an example. Also write its advantage. (5)
8. Classify the different Control statements available in C++ with suitable example. (10)

SECTION - E

9. All questions are compulsory.
(a) List the main characteristic features of high-level languages.
(b) How does a computer language differ from a natural language?
(c) What is 2-D array? How to declare 2-D array?
(d) Describe Arithmetic operations which are used on characters.