

18005(J)

B. Tech 1st Semester Examination

Computer Fundamentals & Programming in C++ (CBS)

CS-101

Time : 3 Hours www.epaper.tk **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 one question each from sections A, B, C and D. Section E is compulsory. Write suitable comments wherever necessary. Assume data wherever necessary.

SECTION - A

1. (a) Explain in detail the classification of computer system. (6)
- (b) What is a computer system? Write down the functions of a computer system. (6)
2. (a) What do you understand by the language of a computer system? Differentiate between high level language and machine language. (6)
- (b) What are translators? Differentiate between compiler and interpreters. (6)

SECTION - B

3. (a) Convert $(BAD)_H$ to $(\quad)_B = (\quad)_D = (\quad)_7 = (\quad)_O$. (8)
- (b) What is cache memory and where it is used in the system? (4)
4. (a) Explain all types of memories used in computer system. (8)
- (b) Explain BCD, ASCII and Clock speed. (4)

SECTION - C

5. (a) What do you understand by linking and loading? Explain. (6)
- (b) What are header files? What is the significance of using the header files. (3)
- (c) Differentiate between identifiers and keywords using suitable examples. (3)
6. (a) What do you understand by precedence of operators? Explain with the help of suitable example. (6)
- (b) What is type conversion? Why type conversion is necessary? (3)
- (c) Explain the logical operators used in C++ using suitable example. (3)

SECTION - D

7. (a) Write a C++ program to check whether a given number is prime or not. (6)
- (b) What are functions? Explain call by value and call by reference concept using as suitable example. (6)
8. (a) Write a C++ program to implement linear search. (6)
- (b) What are arrays? Write down the advantages of arrays. (6)

SECTION - E

- 9 (a) Define Assembler.
- (b) What is internal and external storage.
- (c) What are C++ tokens?
- (d) What are built-in functions and user defined functions?
- (e) Define function prototyping.
- (f) How a two-dimensional array is declared? (6×2=12)