

[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2063)

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B.Tech 2nd Semester Examination
Introduction to Computer Programming in C
CS-1001

Time : 3 Hours

Max. Marks : 100

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 : Candidate are required to attempt five question in all selecting one question from each section A, B, C, D, of the question paper and all the subparts of the questions in section E.

SECTION - A

1. (a) Discuss the various operators available in the C with the help of example.
(b) Differentiate between linker and loader.
(c) Differentiate between compiler, interpreter and assembler.
2. (a) Define recursion. Write a program to find the factorial of a number using the recursion.
(b) Differentiate between break and continue statement. Explain with example.

SECTION - B

3. Discuss the following control statements:
(a) if–else statement.
(b) switch - case statement.

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4. (a) Write a C program to find the sum of digits of any numbers. (ex input: 30 then sum: 3/ input: 246, sum: 12)
- (b) Explain differences between call by values and call by references techniques of parameter passing?

SECTION - C

5. (a) Explain different types of errors during compilation process.
 - (b) What is a data file? How data files can be classified?
6. Explain the following functions with syntax:
 - (a) `sprintf()`
 - (b) `sscanf()`

SECTION - D

7. (a) Write a function to swap two variables using pointers.
 - (b) Write a 'C program to illustrate the use of unions.
8. Write a program that read some text from keyboard and write it into a file name "CS1001.txt". The program then, reads this file and displays its contents on the computer screen.

SECTION - E

9. (a) List the application of arrays?
- (b) Differentiate between structure and union.
- (c) What are different modes in which a file can be opened?
- (d) What is complexity?
- (e) What is the role of sizeof() operator?
- (f) What is pointer to pointer?
- (g) What is difference between V and "x"?
- (h) What is the significance of EOF?
- (i) List the various bitwise logical operator used in C.
- (j) What do you mean by identifier and keywords?