

Roll No. Total No. of Printed Pages : 4

Code No. : BC-193

Online Annual Examination, 2022

B.C.A. Part I

Paper III

PROGRAMMING IN 'C'

Time : Three Hours] [Maximum Marks : 80

Note : Section 'A', containing 10 very short answer type questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.

Section 'A'

Answer the following very short answer type questions in one or two sentences. 1 × 10 = 10

1. Define a variable in C.
2. What is an expression in C ?
3. Mention the significance of main () function.
4. Mention the difference between While loop and do... While loop.

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5. How to declare an array ?
6. What is Structure ? Write the syntax of "structure" (struct).
7. What is Pointer ? Which variables are used to represent it ?
8. What are the operators used with pointers ?
9. What is Preprocessor statement in C ?
10. What is the use of function rewind () function in C.

Section 'B'

Answer the following short answer type questions with word limit 150-200. 4 × 5 = 20

1. Explain the basic structure of a C program with an example.

Or

Explain the various operators used in C.

2. Mention the difference between break and continue with suitable example.

Or

Write a C program to find factorial of n using recursion.

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3. What is Union ? Explain with example.

Or

Write a C program to re-order one dimensional array of numbers in descending order.

4. Write a C program to find the sum and mean of all elements in an array using pointers.

Or

Explain with example the concepts of Dynamic memory allocation functions.

5. What is the purpose of fscanf () and fprintf () statement ?

Or

Discuss file handing through command line argument.

Section 'C'

Answer the following long answer type questions with word limit 300-350. 10 × 5 = 50

1. What are the basic data types in C language ? Explain with examples.

Or

What is a token ? What are the different types of token available in C language ?

2. Explain if, if-else, nested if-else and cascaded if-else with examples and syntax.

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Or

Difference between Call by value and Call by reference.

3. Explain string manipulation library functions with their syntaxes. Write a program to check whether a string is palindrome or not.

Or

Write a C program using structures to prepare the students mark statement. The number of records is created based on the user input.

4. Discuss the concepts of pointer in math expression and arithmetic pointer.

Or

Explain the following with syntax and example :

(a) Pointer as function argument.

(b) Function returning pointer

5. What are preprocessor directives ?

Or

Write a C program to read the contents of a text file.

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