

Roll No.

Total No. of Questions : 07

Total No. of Pages : 02

BCA (2011 & Onward) / B.Sc.(IT) (2015 Batch)

(Sem.-1)

PROGRAMMING IN C

Subject Code : BSBC/BSIT-102

Paper ID : [B1109]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) Draw and name the symbols used in a flow chart.
- b) Why is the use of *goto* statement discouraged in C programs?
- c) Declare a 3-dimensional array to store 30 students' names class wise (for 3 classes).
- d) What is a file handle?
- e) Write down the syntax of switch statement.
- f) Explain the statement 'reg int I;'.
(4)
- g) Why are header files used in a C-program?
- h) What is the drawback of declaring variables as global?
- i) What is a recursive function?
- j) Write down the function keys combinations used for editing, compiling, debugging, and executing a C program.

SECTION-B

2. Explain the steps of program development in C-language. (10)
3. Explain the formatted and unformatted statements for I/O in a c-program. (10)
4. Write down a C program to check if a number is present in a given list of numbers. If present give location of the number otherwise insert the number in the list in the beginning. (6,4)
5. Explain the use of 'continue' statement. Write a program to check whether a number is prime or not. Use continue statement. (4,6)
6. You are given a list stored in memory with starting address as 1004. Write a program to print the list of numbers along with their addresses starting from the 3rd number in the list. (10)
7. Explain the following : function definition, declaration, prototype, and function call with the help of C-code? (10)



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BCA (Sem.-1)
PROBLEM SOLVING USING C
Subject Code : UGCA-1903
M.Code : 76963
Date of Examination: 12-12-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) What is a variable? Illustrate with an example.
- b) What is the importance of keywords in C?
- c) Explain in brief about Symbolic Constants.
- d) What are Nested loops?
- e) What is use of switch statement in C?
- f) Differentiate between Break and Continue statements.
- g) Write advantages of Arrays.
- h) What do you mean by function prototypes?
- i) Differentiate between arrays and structures.
- j) What are the uses of pointer?

SECTION-B

2. Write a detailed note on following :
 - a) Flowcharts
 - b) Decision Trees
3. Explain the following Operators in C Language with suitable examples :
 - a) Arithmetic
 - b) Unary
 - c) Logical
4. Explain the following control flow statements with a suitable C program :
 - a) While
 - b) For
5. What do you mean by Recursion? What is the use of Recursion in C programs? Write a program to find factorial of a number using Recursion.
6. Write a detailed note on various storage classes available in C language.
7. a) What is a pointer? Explain how the pointer variable is declared and initialized?
b) Write a program in C to find the sum and mean of all elements in an array using pointers.

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BCA (Sem.-1)
PROBLEM SOLVING USING C
Subject Code : UGCA-1903
M.Code : 76963
Date of Examination : 08-06-2024

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION-A

1. Write briefly:

- a) What is pseudo code? Give an example of it.
- b) How do you skip the current iteration and continue to the next one?
- c) What are symbolic constants?
- d) Define unary operator with an example.
- e) How do you print integers with leading zeros using printf()?
- f) What is the purpose of a loop's condition?
- g) Define recursion.
- h) What is an address of a variable?
- i) Define static variable.
- j) What is union?

SECTION-B

2. Name and describe the five basic data types in C along with their memory requirements and range.
3. Write a program in C language to find the smallest number among three numbers. Also, draw its flowchart.
4. Write a program to print the following structure using for loop.

```
*  
  
*  *  
  
*  *  *  
  
*  *  *  *
```

5. Write a program in C language to subtract two matrixes of size [3×3].
6. What is structure in C language? Create a structure for storing and accessing information [name, roll marks] of students.
7. Explain the storage classes available in C language.

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BCA (Sem. – 1)
PROGRAMMING IN C
Subject Code: BSBC-102/BSIT-102
M Code: 10044
Date of Examination : 27-06-2024

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION-A

1. Answer the following:
 - a) List various steps in development of a program.
 - b) How is a program compiled and executed?
 - c) Differentiate between Constants and Variables.
 - d) Explain in brief about goto statement.
 - e) What is use of switch statement in C?
 - f) What are Global variables. Explain in brief.
 - g) Define array. Explain with suitable example how to declare and initialize 1D array
 - h) Define string. How string is declared and initialized.
 - i) Explain how pointers and arrays are related with example.
 - j) What are file pointers?

SECTION-B

2. Write a detailed note on following :
 - a) Flowcharts
 - b) Algorithms
3. What is operator and expression? Explain various types of operators available in C language.
4. a) Write a program in C to display the multiplication table for a given integer.
b) Explain the break and continue statements with the help of a C program.
5. What do you mean by Recursion. What is the use of Recursion in C programs. Write a program to find factorial of a number using Recursion.
6. Write a detailed note on following :
 - a) Multidimensional arrays
 - b) String handling functions
7. Write a detailed note on Preprocessor Directives.

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BCA (Sem.-1)
PROBLEM SOLVING USING C
 Subject Code : UGCA-1903
 M.Code : 76963
 Date of Examination : 07-01-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :
 - a) What are the basic data types associated with C?
 - b) Define the term Identifiers and Keywords.
 - c) What are Constants and what are its types?
 - d) Differentiate between formatted and unformatted I/O functions.
 - e) Differentiate between break and continue statements in C.
 - f) Differentiate between structure and union.
 - g) What is a pointer? How a variable can be accessed using pointer?
 - h) How are multidimensional arrays defined?
 - i) What do you mean by Function Prototyping? Explain in brief.
 - j) What are formal and actual Parameters in Functions?

SECTION-B

2. **Write a detailed note on following :**
 - a) Decision Trees
 - b) Pseudo code and Algorithms
3. **Explain the following operators with suitable examples :**
 - a) Relational Operators
 - b) Logical Operators
4. **Write a C Program to print Fibonacci series up to a terms using :**
 - a) While loop
 - b) For loop
5. **What is recursion? Write a C program to find sum of first n natural numbers using recursion.**
6. **What is Storage class? Explain various storage classes with suitable example of each.**
7. **Write a detailed note on the following:**
 - a) Pointers
 - b) Processing a data file

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