**1478/I**

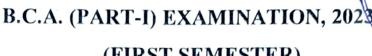# B.C.A. (PART-I) EXAMINATION, 2023-24

## (FIRST SEMESTER)

## (BCA 104 : INTRODUCTION TO COMPUTER PROGRAMMING IN 'C')

### Paper : IV

1536

Time : Three Hours]　　　　　　[Maximum Marks : 70

**Note:** (i) Answer **five** questions in all.

(ii) Question No. 1 is **compulsory**.

(iii) Answer remaining **four** questions, from Section **A** and **B** but not more than **two** questions from each Section.

(iv) All questions carry equal marks.

(v) Symbols have their usual meanings.

1. Answer all parts of the following :

(a) What do you mean by algorithm ? List down its characteristics, give an example of algorithm to support your answer.

(b) What is significance of stdio.h and conio.h in C programming ?

(c) Give the output of the following with explanation :

$\neq$ include $< stdio.h >$

```
void main()
{
        int i = 65;
        char j =' A';
if (i == j)
        print f ("Good Morning") ;
else print f("Good Evening") ;
{
```

(d)    What will be the output of the following :

```
≠ include < stdio. h >
void fun (iut, int) ;
void main()
{
        int i = s, j = 2;
        fun (i, j);
        print f "ln % d % d", i, j);
{
Void fun (C int x, int y)
        {
                x = x * x;
                y = y * y;
        {
```

Give explanation also

## Section-A

2.  Give the structure of a simple C program. What are conditional statements in C ? Give example to explain your answer.

3.  What are loops in C ? What are "entry controlled" and "Exit Controlled" loops in C ?

4.  What are function in C ? Give the need of functions in C. Explain the following for functions:
    (i)     Prototype declaration
    (ii)    Function definition
    (iii)   Calling of function

5.  What is array in C ? Explain the memory representation of one-dimensional and two dimensional array.

## Section-B

6.  (a)    Write a program in C to find the greatest number among three numbers.

    (b)    What do you mean by recursive function ? Give an example of recursive function in C.

7.  (a)    Write a program in C to find out the prime factors of a given number.

    (b)    How can we get more than one value returning from a function in C ? Explain with example.

8.   (a)   How can we pass a given array to a function in C ?

     (b)   Write a program in C to store 10 integer get third highest number among them.

9.   Write notes on any two of the following :

     (a)   Pointers

     (b)   Structure

     (c)   File handling in C

     (d)   Data types in C

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