D                                    (Printed Pages 4)

(21223)                    Roll No. ........................

BCA-I Sem.

# 18002

# B.C.A. Examination, Dec.-2023

## PROGRAMMING PRINCIPLES AND

## ALGORITHM

## (BCA-102)

*Time : Three Hours ]*          *[Maximum Marks : 75*

**Note :** Attempt questions from **all** sections

as per instructions.

### Section-A

### (Very Short Answer Type Questions)

**Note :** Attempt **all** questions. Each question

carries **3** marks. Very short answer is

required **not** exceeding 75 words.

3×5=15

1. What is compiler?

2. What is Actual Parameter?

3. Define Recursion?

4. Explain any two problem solving

techniques.

5. What do you mean by primitive and non

primitive data types.

### Section-B

### (Short Answer Type Questions)

**Note :** Attempt any **two** questions out of

the following three questions. Each

question carries 7.5 marks. Short

answer is required not exceeding 200

words.                    2×7.5=15

1. What is loop? How can do.... while loop

vary from while loop.

2. Explain if.........else with example.

3. Differentiate between call by value

and call by reference with the help of

example.

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## Section-C
### (Long Answer Type Questions)

**Note :** Attempt any **three** questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.     3×15=45

1. Distinguish between break and continue statement.

2. (a) Explain static and register storage class with example.

   (b) What are the advantages of C language?

3. (a) Write a 'C' program to check whether the given number is prime or not.

   (b) Write a 'C' program to calculate Fibonnaci series.

4. Differentiate between flowchart and algorithm. Write an algorithm to compute the Sum of a digits.

5. Write the asymptotic notations used for best case, average case and worst case analysis of algorithms?

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