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(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.

 $3\times5=15$ 

1. What is compiler?

What is Actual Parameter?

3 / Define Recursion?

4. Explain any two problem solving techniques.

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.

- What is loop? How can do... while loop vary from while loop.
- Explain if.....else with example.
- Differentiate between call by value and call by reference with the help of example.

#### P.T.O.

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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.

- 1. Distinguish between break and continue statement.
- (a) Explain static and register storage class with example.
  - (b) What are the advantages of C language?
- (a) Write a 'C' program to check whether the given number is prime or not.
  - (b) Write a 'C' program to calculate Fibonnaci series.

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P.T.O.

- 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?