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(21223)  
BCA-I Sem.

(Printed Pages 4)  
Roll No. ....

**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.

$3 \times 5 = 15$

1. ✓ What is compiler?

- ✗ 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.  $2 \times 7.5 = 15$

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.

**P.T.O.**

**18002/2**

## 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.

$$3 \times 15 = 45$$

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 Fibonacci 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?

18002/3

P.T.O.

18002/4