

[4]

Section C
(Long Answer Type Questions)

Note : Attempt any 2 questions. Each question carries 12 Marks.

6. Describe in details the steps used in problem solving.
7. What is user - defined function ? Explain call-by-value and call-by-reference. Write a program in C to calculate the value of ${}^nC_r$.
8. What is Algorithm ? Explain the term complexity in the execution of Algorithm. Write an algorithm to compute the factorial of any integer M.
9. Explain all the storage classes which are used in C programming with example.

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Total No. of Questions : 9]

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BCA -102 (N)

Bachelor of Computer Applications

(First Semester)

EXAMINATION, MARCH - 2021

(New Course)

Paper Second

**PROGRAMMING PRINCIPLES
AND ALGORITHM**

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt questions from all sections as directed.

Inst. : The candidates are required to answer only in serial order. If there are many parts of a question, answer them in continuation.

Section -A

(Short Answer Type Questions)

Note : All questions are compulsory. Each question carries 3 marks.

P.T.O.

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- Describe the data type in C.
- Distinguish between local variable and global variable.
- Explain token in C.
- Write short notes on Arithmetic operators.
- Write a program in C to calculate the factorial of a given number.
- Explain recursion with the help of an example.
- What is a pseudo code?
- Explain decision making structures using proper example.
- What do you mean by flow chart ? Briefly discuss each symbol used in flow chart.

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Section-B
(Long Answer type questions)

Note : Attempt any 2 questions. Each question carries 12 marks

- Describe the operators in C with proper explanation.
- Write short notes with example
 - For loop
 - While loop
 - If statement
- Write a program and flow chart to calculate the roots of the quadratic equation.
- What is the effect of absence of BREAK in switch statement ? Explain with example.
 - Write a program to print a given triangle.

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1
0 1
1 0 1
0 1 0 1
1 0 1 0 1

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