

11. Define the significance and advantages of using pointers in C, followed by a program demonstrating the swapping of two numbers using pointers.
12. Discuss various input/output operations of files in C, covering functions like fopen( ), fclose( ), fwrite( ), fseek( ) and fflush( ) with examples.
13. Differentiate between 'for', 'while' and 'do ... while' loops in C, emphasizing their distinct syntax and conditions.

## **BCA-06**

**June – Examination 2024**

### **BCA (Part I) Examination**

**PROGRAMMING IN 'C'**

**Paper : BCA-06**

*Time : 3 Hours ]*

*[ Maximum Marks : 70*

*Note :-* The question paper is divided into three Sections A, B and C. Write answers as per the given instructions.

**Section-A**

**7×2=14**

**(Very Short Answer Type Questions)**

*Note :-* Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 2 marks.

1. (i) Define a syntax error in C programming.
- (ii) Why does C require a main function ?

- (iii) Why are keywords reserved in C programming?
- (iv) What define an array in C ?
- (v) Explain the difference between 'int' and 'float' data types in C.
- (vi) What is the significance of the 'return' statement in functions ?
- (vii) Explain the use of the 'typedef' keyword in C.

**Section-B** **4×7=28**

**(Short Answer Type Questions)**

**Note** :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 7 marks.

- 2. Differentiate between 'variables' and 'constants' in C.
- 3. Discuss the consequences of not using a 'break' statement in a 'switch .... case' block in C.
- 4. Explain the concepts of scope and visibility of variable in C programming.

- 5. Describe the Memory Allocation Process for 2D Arrays in C.
- 6. Define enumerated data types and its usage in C.
- 7. Write a C program to check whether a number is prime or not, explaining the Algorithmic Approach.
- 8. Explain the purpose of functionality of the 'ferror( )' function in C. Define the concept of pre-processor.
- 9. Explain the importance of file handling in C programming and provide the example of opening, writing and closing a file.

**Section-C** **2×14=28**

**(Long Answer Type Questions)**

**Note** :- Answer any *two* questions. You have to delimit your each answer maximum up to **500** words. Each question carries 14 marks.

- 10. Describe the functionalities of malloc( ) and calloc( ) functions for dynamic memory allocation in C, provide a example for each.