

1478 / I

**B.C.A. (PART-I) EXAMINATION, 2024-25**

**(I<sup>st</sup> SEMESTER)**

1536

**(BCA 104 : Introduction To Computer Programming in 'C')**

**Paper : IV**

**(Back / Improvement)**



**Time : Three Hours]**

**[Maximum Marks : 70**

- Note:** (i) Answer five questions in all.
- (ii) Question No. 1 is compulsory.
- (iii) Answer remaining **four** questions, from section 'A' and 'B' but not more than two questions from each section.
- (iv) All questions carry equal marks.
- (v) Symbols have their usual meanings.
1. Answer all parts of the following :
- (a) Explain the difference between array and structure.
- (b) Explain the difference between malloc ( ) and calloc ( ) function.

- (c) What is algorithm ? Explain its characteristics.
- (d) What are the importance of pointers in function ?

### Section-A

2. Write short note on :
- (a) fopen ( )
  - (b) fclose ( )
  - (c) fgetc ( )
  - (d) fprintf ( )
3. What are different types of operators in C ? Briefly explain.
4. What are various looping statements ? Explain the different between 'while' and 'do while' loop by suitable example.
5. What is pointer ? Write a C program to print the sum of n natural numbers, using pointers.

## Section-B

6. (a) Write a program to check whether a given number is Armstrong number or not.  
(b) Differentiate between call by value and call by reference.
7. (a) What is the difference between break and continue? Explain with example.  
(b) What do you mean by an Array in C language? What are different types of Array? Explain with example.
8. (a) Write a program to enter five numbers and display them, also find their sum and average.  
(b) What is C programming language? What are the important features of C?
9. Write notes on any two of the following :
  - (a) Data types in C
  - (b) Structure
  - (c) Recursion
  - (d) Storage Classes in C

