

Roll No. ....

Total Pages : 03

BCA/M-22

1872

ADVANCED PROGRAMMING IN C

BCA-121

Time : Three Hours]

[Maximum Marks : 80

**Note :** Q. No. 1 is compulsory. In addition, attempt *four* more questions selecting exactly *one* question from each Unit. All questions carry equal marks.

### Compulsory Question

1. (a) Describe various ways to input a string.
- (b) What is meant by enumeration ?
- (c) Name the various operations that can't be applied on pointers.
- (d) State some applications of pointer to pointer.
- (e) Name the various modes in which a file can be opened in C.
- (f) Name the various types of error handling functions in C.
- (g) How a symbolic constant is defined in C ?
- (h) How can you undefine a macro ? 8×2=16

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## Unit I

2. Write a program in C to insert a string in a given text. 16
  
3. How can you create the following in C :
  - (i) Array of structures
  - (ii) Structures within structures
  - (iii) Passing structures through function
  - (iv) Union of structures. 16

## Unit II

4. How can you perform dynamic memory allocation in C ?  
Explain using suitable program in C. 16
  
5. Explain the concept of pointer to pointer and handling arrays using pointers by writing suitable programs. 16

## Unit III

6. Explain the following functions in C using suitable examples : 16
  - (i) ftell( )
  - (ii) fscanf( )
  - (iii) fwrite( )
  - (iv) fgets( )
  
7. Write a program in C to read the contents of a file, covert the tab spaces with spaces and display the contents of the file. 16

## Unit IV

8. (a) Explain the following using suitable examples in C :  
(i) `#ifdef` (ii) `#error`. 8
- (b) Describe the various predefined macro names in C. 8
9. Write a program in C to read a number from command line argument and find the sum of the digits of the number. Also check for errors, if any, in command line arguments. 16