

Roll No. ....  
Printed Pages : 3

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**BCA / M -15**  
**ADVANCED PROGRAMMING IN C**  
**Paper-BCA-121**

*Time allowed : 3 hours} {Maximum marks : 80*

*Note : Attempt five questions in all including question no. 1 and selecting one question from each section. All questions carry equal marks.*

**Compulsory Question**

- |    |                                                               |   |
|----|---------------------------------------------------------------|---|
| 1. | (a) What is enumerated data type ? Write its uses.            | 3 |
|    | (b) Explain NULL pointer.                                     | 2 |
|    | (c) What is significance of a pointer to pointer?             | 3 |
|    | (d) Differentiate puts () and fputs () string input function. | 3 |
|    | (e) Explain 'argc' and 'argv' command line arguments.         | 3 |
|    | (f) Write any four operations on files ?                      | 2 |

**Section-A**

- |    |                                                                                                                                |   |
|----|--------------------------------------------------------------------------------------------------------------------------------|---|
| 2. | (a) What are similarities and differences between a structure type and a union data type ?                                     | 8 |
|    | (b) Write a program to transfer a union type data to a function subprogram ?                                                   | 8 |
| 3. | (a) Explain advantages and limitations of array of pointers?                                                                   | 8 |
|    | (b) Write a program in C-language to compare two strings without using str cmp function to check the strings are equal or not. | 8 |

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**Section-B**

4. Explain with example of each :
- (a) pointer to a string
  - (b) pointer to structure type
  - (c) pointer to two dimensional array
  - (d) void pointer
- 4×4**

5. Differentiate the following :

- (a) pointer expression and pointer assignment
  - (b) malloc ( ) and calloc ( ) functions.
- 8,8**

**Section-C**

6. (a) Write a program in C-language to create a file called employee and store employee data from keyboard to file.
- 8
- (b) Explain fwrite () sprintf ( ) functions with argument of your choice ?
- 8

7. Differentiate :

- (a) "r" and "r+" mode for file opening
  - (b) fseek ( ) and rewind ( ) functions
- 6**
- 10**

**Section-D**

8. (a) Define a macro to find sum of digits of a three digits number ? Illustrate the use of this macro in a C-language program ?
- 8

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( 3 )

- (b) Explain:
- (i) object like macro and function like macro 4
  - (ii) pre processor directive handling and macro expansion. 4
9. Differentiate the following:
- (a) #if and #elif 6
  - (b) #ifdef and #endif 6
  - (c) File inclusion directive 4