

Roll No.

Total Pages : 03

BCA/M-20

1887

ADVANCED PROGRAMMING IN 'C'

BCA-121

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

1. Explain the following :
 - (a) Function islower() and to lower()
 - (b) Calloc()
 - (c) Puts()
 - (d) Union of structures
 - (e) Enumerated data type
 - (f) Pointer arithmetic
 - (g) #define directive
 - (h) Command line arguments.

Unit I

2. (a) Write a program to sort the list of names of employees in alphabetic order.
(b) What is the difference between a string and character array ? Explain with examples.

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3. (a) Differentiate between structure and union.
(b) Define structure and also write rules for declaring and accessing the structure with an example.

Unit II

4. What is a pointer ? How would you declare and initialize a pointer variable ? Write a simple program to show usage of pointer.
5. (a) What do you mean by pointer to pointer ? Explain its with the help of an example.
(b) Explain the concept of dynamic memory management using pointer.

Unit III

6. (a) What is a file ? Explain various operations performed on a file.
(b) How will you open a file ? What are various file opening modes ?
7. (a) What are various errors that may occur during i/o operations on a file ? How will you handle them ?
(b) What are the functions performed by fseek() and ftell() function ?

Unit IV

8. (a) What is a macro and how will you define it ? What are the advantages of using a macro ? Explain with suitable example.
- (b) Explain the use of #error, #ifdef, #ifndef and #include with some suitable examples.
9. (a) What is recursion ? Illustrate it with suitable example.
- (b) Explain the usage of command line arguments with the help of a program.