Roll No.

Total Pages: 03

BCA/M-23

1864

ADVANCED PROGRAMMING IN C BCA-121

Time: Three Hours]

[Maximum Marks: 80

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

1. Explain the following with example:

 $4 \times 4 = 16$

- (a) Structure
- (b) Union
- (c) Preprocessor
- (d) malloc() and calloc().

Unit I

- Explain standard library functions to handle strings in C
 with suitable examples.
- 3. Explain the following with suitable example: $4\times4=16$
 - (a) Structure within structures
 - (b) Typedef

- (c) Enumeration
- (d) Union of Structures.

Unit II

- 4. What is pointer? How would you declare and initialize a pointer variable? Explain the concept of pointer to pointer with suitable example.
- 5. (a) Differentiate between pointer to an array and array of pointers with example.
 - (b) What do you mean by static and dynamic memory allocation in C? Explain with example.

Unit III

- 6. Explain the following functions in C using suitable examples:

 4×4=16
 - (a) Fseek()
 - (b) fgets()
 - (c) rewind()
 - (d) ftell()
- What are different file opening modes in C? Write a program in C that merges the contents of two files and write result into a new file.

Unit IV

- 8. Explain the following using suitable example in C: $4\times4=16$
 - (a) #error
 - (b) #ifdef
 - (c) #undef
 - (d) #define
- 9. (a) Differentiate between macro and functions with example.
 - (b) Explain command line arguments with example. 8