Roll No. .....

Total Pages : 05

# 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 : **4×4=16**

(a) Structure

(b) Union

(c) Preprocessor

(d) malloc() and calloc().

**Unit I**

**2.** Explain standard library functions to handle strings in C with suitable examples. **16**

**3.** Explain the following with suitable example : **4×4=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. 16

5. (a) Differentiate between pointer to an array and array of pointers with example. 8

(b) What do you mean by static and dynamic memory allocation in C ? Explain with example. 8

## Unit III

6. Explain the following functions in C using suitable examples : 4×4=16

(a) Fseek()

(b) fgets()

(c) rewind()

(d) ftell()

7. 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. 16

## Unit IV

8. Explain the following using suitable example in C : 4×4=16

   (a) #error

   (b) #ifdef

   (c) #undef

   (d) #define

9. (a) Differentiate between macro and functions with example. 8

   (b) Explain command line arguments with example. 8