Roll No. ....　　　　　　Total Pages : 03

OBCA/D-20　　　　1228
'C' PROGRAMMING-II
BCA-231

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.

(Compulsory Question)

1.　(a)　Name the library function to find the length of the string. Give example.

　　(b)　Write a note on enumeration.

　　(c)　Write the purpose of size of operator in pointers.

　　(d)　What are the operations permissible on pointers ?

　　(e)　Name the function for reading a single character from a file.

　　(f)　Differentiate between printf and fprintf.

　　(g)　Draw a comparison between #def and #if directives.

　　(h)　Write the purpose of #include directives.　**8×2=16**

Unit I

2. (a) What do you mean by string ? Differentiate between string constant and string variable. Explain strcmp( ), strupr( ), getche( ) and puts( ) function by giving suitable example.

   (b) Write a program in C to concatenate two strings.

   10+6=16

3. (a) How does a structure differ from an array ? How can an entire structure be passed to a function ?

   (b) What is meant by nesting of structure ? Discuss the only restriction that applies to the nesting of structures.　　　　**8+8=16**

Unit II

4. What is a pointer ? Explain, how the pointer variables declared and initialized ? Write a C program to swap two numbers using call by pointers method.　　　**16**

5. Explain the following with suitable example :
   (a) Pointer conversion
   (b) Dynamic allocation using pointers.　　**8+8=16**

Unit III

6. What is a File ? Discuss different types of file. Explain with an examples the different operations may be performed on a file.　　　　**16**

7. Discuss random-access I/O in files. Explain the following file functions with examples : **16**

    (a)   fseek( )   (b)   read( )

    (c)   fgets( )   (d)   fscanf( )

    (e)   feof( ).

Unit IV

8. What precautions one should take when using macros with arguments ? Explore the disadvantages in use of a macro. **16**

9. Write notes on the following :   **8+8=16**

    (a)   Command line arguments

    (b)   Macro *versus* functions.