1. Answer following questions : (any three) 18
   (i) Explain execution cycle of C program.
   (ii) Differentiate between static and dynamic memory allocation. Explain malloc, calloc and realloc functions with example.
   (iii) Explain nested structure with example.
   (iv) Explain recursion with its advantages and disadvantages.

2. Answer following questions : (any three) 18
   (i) Write an UDF to compare two strings. Function should return 1 if both strings are equal, otherwise it should return 0.
   (ii) Write a program to print Fibonacci series by using recursion.
   (iii) Write a function to find the largest element of an m by n matrix.
   (iv) Create a structure employee (eno, name, designation, salary). Write a program to display information of employee in descending order of salary.
3 Answer following questions : (any three)

(i)   Explain storage classes in C.

(ii)  What is an array ? Write an UDF to sort an array of 10 integers.

(iii) Explain gatc(), getchar() and gets() functions with example.

(iv)  Explain command line arguments with example.

4 Answer following questions : (any eight)

(i)   Explain difference between & and && operator.

(ii)  List all escape sequences available in C language.

(iii) Explain symbolic constants in C.

(iv)  Differentiate between break and continue statement.

(v)   How will you take string with whitespace using C ?

(vi)  Explain the use of sizeof() operator.

(vii) Explain enumeration with example.

(viii) What will be the output of the following code segment ?

main ( )
{
    char s[10];
    strcpy (s, “abc”);
    printf (“%d %d, strlen(s), sizeof (s) ”);
}

(ix)  What is the output of the following statement :

printf (“%3d”, 12345);  

(x)   What is the output of the following statement ?

main ( )
{
    float y;
    y = 198.7361;
    printf (“%7.2f”, y);
}