ANSWER ALL QUESTIONS

SECTION A [8*5=40]

1. a) List out 5 rules for naming variables.

b) Give the syntax of scanf statement & list out any 4 format specifiers.

c) List out any 5 system defined/Library functions.

d) Define actual & formal parameters, with eg.What are the 3 rules to be followed related to these arguments when a function call is made.

e) Give syntax of a structure. When do we use structures? Give eg. What are the methods to create structure variables?

f) Declare a 1-Dimensional (1-D) array of size 100, to store integers. If the starting location of the array is 3000, what is the address of the 13th element? Give a generalized formula.

g) What are pointers? Explain with eg. How is the pointers linked with arrays?

h) Write short notes on : 1) type def 2) enum

SECTION B [4*15=60]

2. List out 4 categories of operators in C, with the list of 5 operators in each category. Give the order of evaluation of the operators in tabular format.
                                  OR
3. Write a C program to find the prime no.s between 1 & 100.(Give logic & eg)

4. a) Write a C program to find sum of integers 1,2,……..,n using recursion.(give logic & eg)

b) List the scope, visibility, storage area, intial value & life time of register & auto storage class in tabular format.
                                  OR
5. a) Explain 1) Parameter passing by value 2) Parameter passing by reference.

b) Write a function "Large" in C to find the largest of n numbers, which receives an array of no.s & number of numbers as parameters.

6. a) Write C program to do selection sort such that if no swapping happens in a pass, sorting stops.

b) Write C program to initialize the upper triangular elements of a matrix with zero.

c) Why is union used? Give syntax.
                                  OR
7. a) Write a C program using structures to store student details like roll no., name, class, sex, mark1, mark2, & total. The total mark is the sum of mark1 & mark2 & is evaluated automatically. Search for those 'girl' students who have total> 75, assume mark1 & mark2 are in 50.(give logic & eg)

8. a) Write a C program using command line arguments, to concatenate two strings "HELLO" & "WORLD" given at command line.

b) How does the execution of programs involving command line arguments differ from other programs?

c) Explain what is the function of # include directive.

OR

9. a) What are pointers to structures? Explain with eg.

b) Explain any 2 preprocessor directive.

c) What are pointers to functions, explain with eg?