MCA/D-18

PROGRAMMING IN C

MCA -14-11

1. (a) What is the use of header files?

   (b) List the arithmetic operators available in C language with their **associativity**.

   (c) Discuss the syntax and semantic of if statement in C language.

   (d) Differentiate between static and dynamic memory allocation. Discuss the library functions in C for dynamic memory allocation.

   (e) Comment on the validity of the following for loop : for (,;);

Unit I

2. (a) What do you understand by hierarchy of operators? Draw the table indicating the hierarchy` of operators in C language.

   (b) What do you understand by side effect? Discuss

the operator in C language causing the side effects.

3 (a) What do you understand by storage class? What are the different storage classes available in C language? Discuss them using suitable examples.

(b) What are the different data types available in C language? Discuss.

Unit II

4.(a) What is the difference between break and continue statement? Write a program in C to print first N nature numbers except perfect square numbers.

(b) What is goto statement ? Why should one avoid the use of goto statement? Discuss.

5. What is difference between while and do-while loop? Write a function in C to generate first N prime

numbers using while loop only.

Unit III

6. What is an array? How is it passed to function as an argument? Write a function in C to sort and array of integer in ascending order passed as an argument.

7. (a) What is a Pointer? Write a function C to swap the values of two integers.

   (b) What is string? Discuss the following string handling library functions in C :

   (i) Strlen

   (ii) Strcmp

   (iii) Strcpy.

Unit IV

8. What is s Struct? Write a pregame in C with a function to read an array of struct where the different field of

struct are emp_no, emp_salary. The emp_no is integer type, emp_name is a string and emp_salary is float. Also write a function to print this array.

9. (a) What are the different modes to open a file in C language? Discuss.

(b) What do you understand by macro? Explain using suitable examples.