UNIT-V

9. (a) Write the syntax for opening a file with various modes and closing a file. 4

(b) Explain the following file handling functions:

a. fseek(), b. ftell() c. rewind() d. feof() 6

(c) Write a C program to display the contents of the file in reverse order. 4

10. (a) Write a C program to count no. of characters, spaces, lines, words of a file. 8

(b) Write a short notes on : 6

i. fgets() ii. fputs() iii. #include iv. #define

UG Even Semester Examination, September, 2023

COMPUTER SCIENCE

(2nd Semester)

Course No.: MCSCC-201

(Programming in C)

Full Marks: 70

Pass Marks: 28

Time: 3 hours

The figures in the margin indicate full marks for the questions.

Answer any five questions, taking one from each unit.

UNIT-I

1. (a) What do you mean by C character set, C variable, C constants? Explain detail. 6

(b) Explain all data types with their range and example. 4

(c) Write a program to print reverse of a number. 4

2. (a) What are loop control structures? Explain for loop and and do-while loop with their syntax. 6

(b) Differentiate between break and continue. 4

(c) Write program to swap two numbers without using third variable. 4

UNIT-II

3. (a) What is a function? Write the types of functions with example. 4

(b) What is meany by call-by value and call-by reference explain with examples. 6

(c) Distinguish between the following : 4

(i) Global and Local variables

(ii) Automatic and static variables

4. (a) What is pointer? Explain the declaration of pointers and pointer to pointer with examples. Write a C program to print address of a variable. 2+3+3

(b) What is recursion? What are the advantages and disadvantahes of recursion? 2+4

UNIT-III

5. (a) Define array. Write a program to implement the following from an array of n elements.

(i) Find maximum and minimum number.

(ii) Find addition of fourth and fifth element

(iii) Print second last element. 2+4+3+2

(b) Define 2-D array with its syntax and explain how to initialize 2-D array. 3

6. (a) What is string? Explain with example. 3

(b) Write short notes on external and register storage class. 3

(c) Write the output for the given c code and explain your answer. 7

```
main ()
{
int n[25];
n[0]= 100;
n[24]= 200;
printf("%d%d",  *n,*(n+24)+*(n+0);
}
```

UNIT-IV

7. (a) Define structure and explain how it differ from other data types. 4

(b) How to initialize and access the member of structure? Explain with example. 4

(c) Write some of the differences between structure and union. 3

(d) Write a program that shows concept of structure. 3

8. (a) Define Union? How to represent an union? 3

(b) Explain #if, #elseif, #undef and #pragma directive with example. 6

(c) Explain Array of structures with an example. 5