MUTHAYAMMAL ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi, Accredited by NAAC & Affiliated to Anna University)

Rasipuram - 637 408, Namakkal Dist., Tamil Nadu.

Department of Information Technology
Question Bank - Academic Year (2020-21)

Course Code & Course Name	:	19GES01 & Programming for Problem Solving Using C
Name of the Faculty	:	Mr.S.GOPI
Year/Sem/Sec	:	I / I / -

Unit-I: Introduction to C Programming
Part-A (2 Marks)

1. What is Computer Software and its Types?

2. Differentiate flowchart and Algorithm

3. List out the Flowchart Symbols.

4. What is pseudo code?

5. List the types of operators

6. What is the use of main ( ) function in C program?

7. Distinguish between variable and constant

8. What is Ternary operators or Conditional operators?

9. List the various input and output statements in C.

10. State Typecasting.

Part-B (16 Marks)

1. Describe the structure of the C program with suitable example   (16)

2. Summarize the various types of operators in C language along with its priority   (16)

3.(i). Write an algorithm to find largest of Three numbers   (8)

(ii). Draw a flowchart to find largest of Three numbers   (8)

4. Write short notes on type conversion and type casting with example   (16)

5. Explain in detail Input / Output Statements in C with suitable example   (16)

Unit-II : Conditional and Looping Statements
Part-A (2 Marks)

1. What is the difference between if and while statement?

2. Compare switch( ) and nested-if statement.

3. Distinguish between while..do and do..while statement in C.

4. Which loop statement is executed at least once even loop test condition if false?

5. Differentiate break and continue statement

6. What is a looping?

7. Difference between Entry controlled and Exit controlled loop?

8. Distinguish Increment and Decrement operators.

9. Give the syntax for the 'for' loop statement

10. Define nested for-loop

Part-B (16 Marks)

1. What is the purpose of a "FOR" statement?. Compare FOR with WHILE and DO-WHILE statement. (16)

2. Explain the following with examples: Ternary or conditional operator, goto statement and jumps in loops. (16)

3. Write an algorithm and program for finding the biggest of 3 numbers.(using ternary operator) (16)

4. Write the different loop control structures available in C. Explain each one of them briefly. (16)

5. Write a C program and draw flowchart to find the sum of first 10 natural numbers. Explain with examples and flowchart (16)

Unit-III : Functions and Arrays
Part-A (2 Marks)

1. What are functions in C?

2. How will define a function in C?

3. What is the need for functions?

4. Define recursion

5. Distinguish between Call by value Call by reference. Call by value Call by reference.

6. Compare actual parameter & formal argument

7. What is an array?

8. Why is it necessary to give the size of an array in an array declaration?

9. What is the difference between an array and pointer?

10. What is the difference between Strings and Arrays?

Part-B (16 Marks)

1. What are functions? How are they useful? What are the different kinds of user defined functions and what is the need of user defined functions? (16)

2. With suitable example illustrate "call by value and call by reference" techniques of passing parameters for functions (16)

3. What is an Array? Discuss how one dimensional array can be declared and their elements are accessed? With suitable example explain the process of deleting an element into an 1D-Array (16)

4. Write short note on two (16)

5. Write a C program to find the sum and differences of matrices using 2D (16)

Unit-IV : Strings and Structures
Part-A (2 Marks)

1. Define Strings.

2. What is the use of '\0' character?

3. How strings are represented in C language?

4. What is the use of strlen()?

5. What is the use of strcat()?

6. Differentiate strncpy() and strncpy()?

7. Define Structure in C.

8. How will you declare structure variables?

9. List the main aspects of working with structure.

10. Write any two advantage of Structure.

Part-B (16 Marks)

1. Discuss about any eight built in functions of string. (16)

2. Write a C program to convert the given string from lowercase characters to uppercase character and uppercase to lowercase. (16)

3. What is a structure? Create a structure with data members of various types and declare two structure variables. (16)

4. Write a program to read data into these and print the same. Explain array of structure in C. (16)

5. Write a C program to create mark sheet for students using structure. (16)

Unit-V : Pointers and File Processing
Part-A (2 Marks)

1. What are address operator and indirection operator?

2. What is a Pointer? How a variable is declared to the pointer?

3. What are null pointers

4. List out the applications of pointers.

5. What are pointers to pointers?

6. What are file attributes?

7. What is the use of functions fseek(), fread(), fwrite() and ftell()?

8. What are the statements used for reading a file?

9. What is random access file?

10. State the two categories of standard data files.

Part-B (16 Marks)

1. How array elements are accessed using pointers? With suitable example.   (16)

2. How can you pass a pointer as a parameter in C? Give an example.   (16)

3. Write a function using pointers to add two matrices and to return the resultant matrix to the calling function   (16)

4. What is file in C? Give brief introduction about files and its operations.   (16)

5. Write a program to copy contents of input, txt file to output .txt file.   (16)

Course Faculty   **HoD**