Course Code: 23ES11T02

## MALINENI LAKSHMAIAH WOMEN'S ENGINEERING COLLEGE (AUTONOMOUS)

I-B.Tech I-Semester Regular Examinations (MR23), February - 2024
INTRODUCTION TO PROGRAMMING (COMMON TO ALL BRANCHES)
Time: 3 hours
Max. Marks: 70
Question Paper consists of Part-A and Part-B
Answer ALL the question in Part-A and Part-B
$\underline{\text { PART-A (10X2M }=20 M)}$

|  |  | Marks | CO | L |
| ---: | :--- | :---: | :---: | :---: |
| 1.a) | What do you mean by variables in 'C'? | $(2 \mathrm{M})$ | CO1 | L1 |
| b) | Identify the use of ternary or conditional operator. | $(2 \mathrm{M})$ | CO1 | L4 |
| c) | Recommend the suitable example for infinite loop <br> using while. | $(2 \mathrm{M})$ | CO2 | L5 |
| d) | Differentiate break and continue statement. | $(2 \mathrm{M})$ | CO2 | L2 |
| e) | Define a float array of size 5 and assign 5 values to it. | $(2 \mathrm{M})$ | CO3 | L1 |
| f) | How to initialize a string? Give an example. | $(2 \mathrm{M})$ | CO3 | L6 |
| g) | Define pointer. How will you declare it. | $(2 \mathrm{M})$ | CO4 | L1 |
| h) | Invent the application of size of operator to this structure. <br> Consider the declaration: <br> struct <br> \{ <br> char name; <br> int num; <br> \} student; | CO4 | L6 |  |
| i) | What is meant by pass by value and pass by reference? | $(2 \mathrm{M})$ | CO5 | L3 |
| j) | How to read and write the file in C. | $(2 \mathrm{M})$ | CO5 | L6 |

## PART-B (5X10M = 50M)

| 2a. | Explain the concept of type conversion in programming and why it is necessary. Give an example of implicit or explicit type conversion. <br> Briefly explain the concepts of compilation and execution in programming. | (5M) $(5 \mathrm{M})$ | CO1 | L2 |
| :---: | :---: | :---: | :---: | :---: |
| (OR) |  |  |  |  |
| 3a. <br> b. | Discuss the use of flowcharts as a visual representation of algorithms. <br> Write an Algorithm along with flow chart and pseudocode to find whether the given number is odd or even. | $\begin{aligned} & (5 \mathrm{M}) \\ & (5 \mathrm{M}) \end{aligned}$ | CO1 | L2 L3 |
| 4a. <br> b. | Write a C program <br> To check whether a given year is leap or not. | (5M) |  | L4 |
|  | Write a C Program To generate the first n numbers in a Fibonacci series. | (5M) | CO2 | L1 |


| (OR) |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| 5a. | Write a C program <br> To check whether the given number is Odd or Even <br> Write a C program <br> To check whether the given number is Armstrong number are not. | (5M) <br> $(5 \mathrm{M})$ | CO2 | L3 |


| 6 a. b. | Explain about the String Arrays and its manipulation in detail. <br> Describe the following with respect to arrays: - Declaration of array and accessing an array element. | $\begin{aligned} & (5 \mathrm{M}) \\ & (5 \mathrm{M}) \end{aligned}$ | CO 3 | L1 L2 |
| :---: | :---: | :---: | :---: | :---: |
| (OR) |  |  |  |  |
| 7 a. b. | Describe the following functions with examples. <br> (i) strlen() (ii) strcpy() <br> Describe the with suitable examples the initializing a 2Dimensional Array. | $\begin{aligned} & (5 \mathrm{M}) \\ & (5 \mathrm{M}) \end{aligned}$ | CO3 | L1 L2 |


| 8 a. b. | Describe about pointers and their operations that can be Performed on it. <br> Explain about the structures and its operations. | $\begin{aligned} & (5 \mathrm{M}) \\ & (5 \mathrm{M}) \\ & \hline \end{aligned}$ | CO4 | L1 L2 |
| :---: | :---: | :---: | :---: | :---: |
| (OR) |  |  |  |  |
| 9 a. | Develop a C program to store the employee information using | (5M) |  | 4 |
| b. | Define a structure called student that would contain name, regno and marks of five subjects and percentage. Write a C program to read the details of name, regno and marks of five subjects for 6 students and calculate the percentage and display the name, regno, marks of 6 subjects and percentage of each student. | (5M) | CO4 | L4 |


| 10a. <br> b. | Discuss about passing arrays to function. <br> Describe the various functions used in a file with example. | $(5 \mathrm{M})$ <br> $(5 \mathrm{M})$ | CO5 | L 2 <br> L 1 |
| :---: | :--- | :---: | :---: | :---: |
| (OR) | (5M) | L3 |  |  |
| 11a. | Demonstrate about function declaration and function <br> befinition. | (5M) <br> Distinguish between the following functions. <br> getc() and getchar(). <br> scanf() and fscanf(). | CO 5 | L 2 |

