VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN
(An Autonomous Institution)
I-B.Tech.–I-Semester Regular Examinations, February-2025
C Programming for Engineers
(ECE)

Time: 3 Hours   **Max. Marks: 60**

(Answer All Questions)

Note: Question paper consists of Part-A & Part-B.
- **Part-A** for 10M, ii) **Part-B** for 50marks
- **Part A** is compulsory, consists of 10 sub questions from all units carrying equal marks.
- **Part-B** consists of **10 questions** (numbered from 2 to 11) carrying **10marks** each. From each unit there are 2 questions and the students should answer one of them. Hence the student should answer **5 questions** from **Part-B**.

PART-A   (10Marks)

1 a. List the data types in C. What is the size of each of these data types?   1M
1 b. Define the Flowchart and Explain with a neat diagram?   1M
1 c. Define Loop. Write different forms of loops in C?   1M
1 d. Explain Type conversion?   1M
1 e. What is an array? Explain syntax to declare one dimensional array using example.?   1M
1 f. Explain Passing Parameter Techniques?   1M
1 g. What is Dynamic memory allocation?   1M
1 h. What is a Pointer? How to Declare a Pointer?   1M
1 i. What is the time complexity of insertion sort?   1M
1 j. Explain about enum Datatype?   1M

PART-B   (50Marks)

2 a List and explain the steps involved in execution of a C program.?   **5M**

2 b Write an algorithm for finding the maximum of two numbers and trace the algorithm to depict the logic with a sample input?   **5M**

OR

3 a Make a comparison between the compiler and an interpreter?   **5M**

3 b List and explain the various symbols used in flowchart design with a neat diagram.?   **5M**

4 a Summarize various operators available in C?   **5M**

4 b Explain the difference between break, goto and continue statements with an example?   **5M**

OR

5 a What is an expression? Explain different categories of expressions.?   **5M**

5 b Differentiate between while and do-while statements with example?   **5M**

6 a What are the advantages of functions?   **5M**

6	b	Write a program to find the string length by using inbuilt string functions?	**5M**

<p align="center">OR</p>

7	a	Discuss about String manipulation functions.?	**5M**
7	b	Explain the methods of passing data to a function with examples?	**5M**

8	a	Elaborate the command line arguments?	**5M**
8	b	Describe the use of pointers in self-referential structures.?	**5M**

<p align="center">OR</p>

9	a	Give the syntax of malloc() and realloc() functions and Explain its need.?	**5M**
9	b	List and explain the standard C pre-processors?	**5M**

10	a	Explain the insertion sort with an example program.?	**5M**
10	b	How the structure elements can be passed to functions? Explain with an Example program.?	**5M**

<p align="center">OR</p>

11	a	Illustrate Bubble sort with an Example.?	**5M**
11	b	Explain the difference between structure and union with an Example?	**5M**

<p align="center">*****VMTW*****</p>