**CONTENT OF C LANGUAGE TRAINING COURSE**

|  |
| --- |
| **1. Introduction to Programming Languages**   * Low Level Language * Assembly Language * High Level Language |
| **2. Introduction of C**   * Why C * Features Of C * Tokens   + Constant   + Variable   + Keyword   + Identifier   + Separators   + Operators     - Assignment Operator     - Arithmetic Operator     - Shorthand Operator     - Relational Operator     - Conditional Operator     - Logical Operator     - Bitwise Operator     - Increment | Decrement Operator     - Special Operator |
| **3. C Data type** |
| **4. Structure of C program**   * Compilation Process and Execution of C program. |
| **5. First C program**   * Input, Output, const & #define |
| **6. Basic Formula Implementation C Programs** |
| **7. Introduction to Algorithm and Flow-Chart, Building C program using Flowchart.** |
| **8. Control Statements**   * Sequential Control Statement * Conditional (Decision) Control Statement * If statement * If else statement * Nested if else statement * Else if ladder * Switch Control Statement * Looping Control Statement * Introduction To Loop * Types Of Loops * For Loop * While Loop * Do While Loop |
| **9. Nested Loop.**   * Pattern Programs |
| **10. Jump Statements**   * break * continue * goto label * exit() |
| **11. Introduction to Function**   * Advantages of Function * Need Of Function * Types of Function. * Category of Function |
| **12. Introduction to Pointer.**   * Pointer to Pointer(Double Pointer) * Call By Value * Call By Reference |
| **13. Recursion.** |
| **14. Introduction to Array**   * Need of Array. * Types Of Array * Dealing with 1-D Array * Dealing with 2-D Array * Dealing with Multi Dimensional Array * Array of Pointer * Pointer to an Array * Returning multiple values through function with the help of pointer * Passing 1-D Array to Function. * Passing 2-D Array to Function. * Programming practice with Array. (Searching & Sorting - Selection, Insertion, Bubble) |
| **15. Introduction to String**   * Creating String Function for reverse, concatenation, copy, lowercase, uppercase etc . * String Handling Functions. |
| **16. Introduction to Structure**   * Declaring Structure * Typedef in Structure * Array Of Structure * Nested Structure * Passing Structure to the function. * Structure With Pointer |
| **17. Union, Structure v/s Union** |
| **18. #define (Macro) & Enumeration** |
| **19. Storage Classes**   * Automatic Storage Class * Register Storage Class * Static Storage Class * External Storage Class |
| **20. Memory Allocation**   * Static Memory Allocation * Dynamic Memory Allocation(DMA) * Malloc() * Calloc() * Realloc() * Free() |
| **21. File handling in c** |