PPS IMPORTANT TOPIC

Note: Prepare all topics from all the unit, but concentrate more on the following topics

UNIT-1

- Compare compiler and interpreter.
- What is algorithm? How it is used as a problem-solving tool.
- What is pseudo code? How it is used as a problem-solving tool.
- Writing algorithms, Pseudo code and Flow Chat for
    - Fibonacci Series (OR)
    - Check Number Is Armstrong or Not (OR)
    - Check a Number is Palindrome or Not (OR)
    - Find Factorial of a Number (OR)
    - convert temperature from Fahrenheit to Celsius (OR)
    - convert temperature from Celsius to Fahrenheit (OR)
    - prime number or not (OR)
    - sum of even digits in a number in c (OR)
    - sum of odd digits in a number in c (OR)
    - sum of natural numbers (OR)
- What is a token? What are different types of tokens available in C language? Explain. (explain the following topic with example Keywords, Identifiers, Constants and Special Characters)
- Unformatted Input/Output functions.
- **Storage Class** (Auto, static, extern, register)
- **Operators** (all operators with example)
- Operator Precedence (They will give some expression, you have to solve expression using operator precedence rules)
- Write C program to read a radius of a Circle as an input and Calculate its Diameter, Circumference, and Area.
- Write a C program to swap two numbers without using third variable.
- Write a C program to enter length and width of a rectangle as an input and calculate its perimeter and its area.
- Write a C program to swap two numbers using bitwise operator.
- Read two angle of a triangle as an input and find the third angel. And also read base and height of the triangle as an input from the user and find area of a triangle.
- Write a C program to convert temperature from Fahrenheit to Celsius.
- Write a C program to enter basic salary and prepare pay slip using following data. TA = 15% of basic, HRA = 8% of basic, Grade Pay = 9000, and PF = 15% of basic. Calculate Gross salary, PF and Net salary and display them.

UNIT-2

- Explain in detail about Conditional Control Statements. (Simple if, if...else, else if and nested if, Switch case with example)
- Explain in detail about Looping Control Statements. (for, While, do.while with example)
- Write a c programming to
    - Fibonacci Series (OR)
    - Check Number Is Armstrong or Not (OR)
    - Check a Number is Palindrome or Not (OR)
    - Find Factorial of a Number (OR)
    - prime number or not (OR)

    - sum of even digits in a number in c (OR)
    - sum of odd digits in a number in c (OR)
    - sum of natural numbers (OR)
    - Find Factorial of a Number Using Recursion. (OR)
    - They will give some pattern.
- Write a c program for
    - Matrix Addition Program
    - Matrix Subtraction Program
    - Matrix Multiplication Program
    - Sorting element
    - To Insert An Element Desired or Specific Position In An Array
    - To Delete Element From Array At Desired Or Specific Position
- Pointer
- What is dynamic memory allocation? Write and explain the different dynamic memory allocation functions in C

UNIT-3

- Explain string function with an example. (Prepare all string function with an example).
- C Program to Count Vowels, Consonants, Digits and Spaces in Given String or Remove all characters in a string except alphabets or Reverse a string using recursion or find index of character.
- Explain Call by Value and Call by Reference with an example.
- C function argument and return values. (explain Four types with an example)

UNIT-4

- Basic Data Types in Python.
- Explain in detail about Conditional Control Statements in python
- Explain in detail about Looping Control Statements in python.
- List function and methods.
- Tuple function and methods.
- Set methods.
- Dictionaries methods.

UNIT-5

- NumPy ndarray
- Slicing arrays in NumPy
- Dealing with Rows and Columns in Pandas.
- Working with Missing Data
- Applying Functions to Data frames
- Comparison between Numpy and Pandas
- Other Python Libraries