PYTHON SYLLABUS

1. **Language Fundamental**
    a) Introduction
    b) Features Of Python
    c) Limitations Of Python
    d) Flavors Of Python
    e) Ruby Python
    f) Anaconda Python

2. **Detailed Index**
    a) Data Types
    b) Base Conversions
    c) Slicing of Strings
    d) Type Casting
    e) Int()
    f) Float()
    g) Complex()
    h) Bool()
    i) Str()
    j) Fundamental data types vs Immutability
    k) Escape Characters
    l) Constants

3. **Operators**
    a) Arithmatic Operators
    b) Relational Operators / Comparison Operator
    c) Equality Operators
    d) Logical Operators
    e) Bitwise Operators
    f) Bitwise complement Operator
    g) Shift Operators
    h) Assignment Operators
    i) Conditional operators
    j) Special Operator
    k) Identity Operators
    l) Membership Operators

4. **Flow Control**
    a) Conditional Statements
    b) Iterative Statements
    c) Transfer Statements
    d) Loops with else Block

e) Difference between del & none

5. **String Data Type**
   a) What is string ?
   b) How to define multi-line string Literals ?
   c) How to access characters of a string ?
   d) Behaviour of slice operator
   e) Slice operator case study
   f) Mathematical Operators for string
   g) Len() in-built function
   h) Checking membership
   i) Comparison of strings

6. **List Data Structure**
   a) Creation of list Objects
   b) Accessing Elements of list
   c) List vs mutability
   d) Traversing the elements of list
   e) Important Functions of list
   f) To get information about list i:e len(), count(), index()
   g) Manipulating Elements of list i:e append(), insert(), extend(), remove(), pop()
   h) Ordering Elements of list i:e reverse(), sort()

7. **Tuple Data Structure**
   a) Tuple Creation
   b) Accessing Elements of tuple
   c) Tuple vs Immutability
   d) Mathmatical Operators for Tuple
   e) Important Functions of Tuple
   f) Tuple Packing & Unpacking
   g) Tuple Comprehension
   h) Differences between list & Tuple

8. **Set Data Structure**
   a) Creation of set Objects
   b) Important Functions of set
   c) Mathmatical Operations on the set
   d) Membership Operator (in, not in)
   e) Set Comprehension

9. **Dictionary Data Structure**
   a) How to create Dictionary ?
   b) How to Access Data From the dictionary ?
   c) How to update Dictionaries ?

d) How to delete elements from Dictionary ?
e) Important Functions of Dictionary
f) Dictionary comprehension

10. Functions

a) Built in Functions
b) User Defined Functions
c) Parameters
d) Return Statement
e) Returning multiple values from a function
f) Types of Arguments
g) Types of Variables
h) Recursive Functions
i) Anonymous Functions
j) Normal Functions
k) Lambda Functions
l) Filter() Functions
m) Map() function
n) Reduce() functions
o) Everything is an object
p) Function Aliasing
q) Nested Functions

11. MODULES

a) Renaming a module at the time of import
b) From Import
c) Various Possibilities of Import
d) Member Aliasing
e) Reloading a module
f) Finding members of module by using dir() function