



DEPARTMENT OF TRAINING & PLACEMENTS

II B.TECH – I SEM - CRT TRAINING – 2023 (ADMITTED BATCH)

AY: 2024-25

TECHNICAL TRAINING

ADVANCE PYTHON

SYLLABUS

- ➔ Need of Object Oriented Programming.
- ➔ Object Oriented Programming Principles.
- ➔ Importance of Object Oriented Programming through Python programming.
- ➔ Object Oriented Programming Features in Python Language.

OOP's Features:

- ❖ Object
- ❖ Class
- ❖ Constructors
- ❖ Data Hiding
- ❖ Data Abstraction
- ❖ Data Encapsulation
- ❖ Inheritance
- ❖ Polymorphism

General Concepts:

- ➔ Instance Variables , Class Variables
- ➔ Instance Methods , Class Methods, & Static Methods
- ➔ Self Variable
- ➔ Usage of Super() Method
- ➔ Operator Overloading
- ➔ Example Programs
- ➔ Objective Questions
- ➔ **Exception Handling**
 - ❖ Error Handling
 - ❖ Exception Handling
 - ❖ Keywords
 - ❖ Example Programs

OOP's Concepts in details

→ Data Hiding and Data Abstractions in Python.

- ❖ Access Modifiers in Python
- ❖ Example Programs and Objective Types Questions

→ Data Encapsulation in python.

- ❖ Writing Different Classes and Objects
- ❖ Abstract Methods
- ❖ Abstract classes
- ❖ Data Hiding & Abstraction Examples
- ❖ Data Encapsulations Example Programs and Objective type Questions.

→ Inheritance in Python

- ❖ Need Of Inheritance and advantages
- ❖ without inheritance Programming Examples
- ❖ Types Of inheritances
- ❖ Single level inheritance
- ❖ Multilevel Inheritance
- ❖ Multiple Inheritance
- ❖ Method Resolution Order (MRO)
- ❖ Hierarchical Inheritance
- ❖ Hybrid Inheritance
- ❖ Use of super () Inheritance concepts and Examples
- ❖ Nested Classes
- ❖ Example programs and objective types of Questions

→ Polymorphism in Python.

- ❖ Need of polymorphism in real world with example programs
- ❖ About polymorphism
- ❖ Method overloading
- ❖ Method Overriding
- ❖ Example programs and Object types of Questions.