

# DEPARTMENT OF TRAINING & PLACEMENTS

**II B.TECH – I SEM - CRT TRAINING – 2025**

**AY: 2025-26 TECHNICAL TRAINING OOPS THROUGH PYTHON**

# S Y L L A B U S

 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.