**SARDAR VALLABHBHAI PATEL INSTITUTE OF TECHNOLOGY, VASAD**

**SEM: IVTH BRANCH: COMPUTER/IT**

**SUBJECT: OOPC CODE: 2140705**

**SYLLABUS**

1 **Concepts of OOP** : Introduction OOP, Procedural Vs. Object Oriented Programming, Principles of OOP, Benefits and applications of OOP

2 **C++ Basics** : Overview, Program structure, namespace, identifiers, variables, constants, enum, operators, typecasting, control structures

3 **C++ Functions** : Simple functions, Call and Return by reference, Inline functions, Macro Vs. Inline functions, Overloading of functions, default arguments, friend functions, virtual functions

4 **Objects and Classes** : Basics of object and class in C++, Private and public members, static data and function members, constructors and their types, destructors, operator overloading, type conversion

5 **Inheritance** : Concept of Inheritance, types of inheritance: single, multiple, multilevel, hierarchical, hybrid, protected members, overriding, virtual base class

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