

**BITS edu campus**  
**Institute of Technology**  
**B.E. Semester 5<sup>th</sup> Sessional Exam**  
**Subject: Object Oriented Programming with Java(2150704)**  
**Branch: CSE**  
**Syllabus**

**Basics of Java:**

Features of Java, Byte Code and Java Virtual Machine, JDK, Data types, Operator, Control Statements – If , else, nested if, if-else ladders, Switch, while, do-while, for, for-each, break, continue.

**Array and String:**

Single and Multidimensional Array, String class, StringBuffer class, Operations on string, Command line argument, Use of Wrapper Class.

**Classes, Objects and Methods:**

Class, Object, Object reference, Constructor, Constructor Overloading, Method Overloading, Recursion, Passing and Returning object form Method, new operator, this and static keyword, finalize() method, Access control, modifiers, Nested class, Inner class, Anonymous inner class, Abstract class.

**Inheritance and Interfaces:**

Use of Inheritance, Inheriting Data members and Methods, constructor in inheritance, Multilevel Inheritance – method overriding Handle multilevel constructors – super keyword, Stop Inheritance – Final keywords, Creation and Implementation of an interface, Interface reference, instanceof operator, Interface inheritance, Dynamic method dispatch ,Understanding of Java Object Class, Comparison between Abstract Class and interface, Understanding of System.out.println statement.

**Package:**

Use of Package, CLASSPATH, Import statement, Static import, Access control

**UML:**

Introduction to Object orientation, Modeling as a Design Technique Modeling Concepts, abstraction, The three models, Class Model, State model and Interaction model.

**Class Modeling:**

Object and class concepts, link and association, Generalization and Inheritance.

