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| 13CS2103 | - | OBJECT-ORIENTED PROGRAMMING THROUGH JAVA |

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| Hours / Week | : | 4 |  | Sessional Marks | : | 40 |
| Credits | : | 4 |  | End Examination Marks | : | 60 |

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| **UNIT – I** |
| **Introduction To OOPS**: Overview of Programming, programming, paradigms, Basics of OOP.**Introduction To JAVA**: History of java, Java Buzz words, Data types, Variables, Scope and Life time of variables, Operators, Expressions, Control statements, Type conversion and casting, Simple java program, Recursion.  |
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| **UNIT – II** |
| **Arrays**: Declarations and Creation, Accessing array elements, Initialization and accessing values, Multidimensional arrays. **String Handling**: String, String Buffer classes, String Tokenizer classes. **Stream Classes**: Input, Output, File input, File output streams. |
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| **UNIT – III** |
| **Inheritance**: Types of inheritance, Benefits of inheritance, Member access rules.**Constructors**: Constructors, Constructor calling sequence. **Polymorphism**: Method overriding, Method overloading, Abstract classes. **Packages And Interfaces**: Defining, Creating and accessing a package, Defining an interface, Implementing interface, Extending interfaces. |
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| **UNIT – IV** |
| **Exception Handling**: Concepts of Exception handling, Benefits of Exception handling, Exception Hierarchy, Usage of Try, Catch, Throw, Throws and Finally, Built in Exceptions, Creating own Exceptions. **Multi-Threading**: Processes and threads, Life cycle of a thread, Thread methods, Creating and naming a threads, Priority threads, Daemon threads, Thread groups. |
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| **UNIT - V** |
| **Applets**: Concepts of applets, differences between Applets and applications, Life cycle of an applet, Creating an applet, Passing parameters to applets. **Event Handling**: Events, Event classes, Event Listeners, Delegation Event Model, Handling mouse and keyboard Events, Adapter classes, Inner classes. |
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| TEXT BOOKS |
| 1. Java: The Complete Reference, 7th Edition, Herbert Schildt TMH.
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| REFERENCE BOOKS |
| 1. Slack JM, Programming and problem solving with java, Brook/Cole, 2000.
2. An introduction to java programming and object oriented application development, R A Johson-Thomson.
3. Introduction to java programming 6th Edition, Y Daniel liang, Pearson Education.
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