

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Computer Science)
Semester: VI
Syllabus with Effect from: November/December-2013

Paper Code: US06CCSC01	Total Credit: 3
Title Of Paper: Object Oriented Programming Using Java	

Unit	Description in detail	Weighting (%)
I	<p>Introduction History of Java, features, the Java environment, the Java Virtual Machine (JVM) Structure of a Java program, a simple Java program, implementing a Java program Tokens, comments, constants, variables and data types Scope of variables, type casting Operators: arithmetic, relational, logical, assignment, increment/decrement, conditional, ternary operator & special operators Decision making: if statement, if...else statement, nesting of if...else, the else if ladder, switch statement Looping: while, do...while, for, for each loop jumps in loops, labeled loops Arrays: one, two dimensional arrays</p>	25%
II	<p>Classes, Objects, Interfaces and Inheritance Defining a class, members of a class: variables and methods, creating objects, constructors, accessing class members Static members v/s instance members Introduction to inheritance, super keyword Interfaces: introduction, definition, extending, implementing & accessing Final variables, methods and classes, abstract methods and classes Introduction to method overloading and overriding</p>	25%
III	<p>Exception Handling, I/O Management and Packages Managing errors & exceptions: introduction, types of errors, exceptions, syntax of exception handling construct, multiple catch statements, the finally clause, defining and throwing user-defined exceptions, the throw statement Managing I/O files : introduction, concept of streams, Character stream classes Introduction to the concept of package, Java API packages, using the System package Using java.lang (String, Math)</p>	25%
IV	<p>Applet Programming & JDBC Applet architecture and skeleton java.awt package (Button, CheckBox, CheckBoxGroup, Choice, Color, Label, List, TextArea, TextField) HTML applet tag, display techniques (DrawString, Lines, Rectangle, Ellipses, Circles, Arcs, Polygons, Color) Introduction to event handling Introduction to JDBC, types of drivers java.sql package Retrieving, inserting, deleting and updating data through Java</p>	25%



Text books:

- Programming with Java- A Primer by E. Balaguruswami,3rd Edition,TMH Publ.
- The Complete Reference – Java 2 7th Edition Herbert Schildt. TMH Publication

Basic Text & Reference Books:-

- Saba Zame , Handbook of Object technology, CRC Press, Washington DC, 1999
- Mary Campion and Kathy Walrath, Java tutorial, Second Edition, Addison Wesley Pun. 1998.
- Java 2 Programming Black Book, Steven Holzner

