

OBJECT ORIENTED PROGRAMMING

II B. TECH- II SEMESTER: IT/CSIT/CSE

Course Code	Category	Hours / Week			Credits	Maximum Marks		
A5IT01	PCC	L	T	P	C	CIE	SEE	Total
		3	1	-	4	30	70	100
COURSE OUTCOMES:								
<ol style="list-style-type: none"> 1. Use object oriented programming concepts to solve real world problems. 2. Demonstrate the user defined exceptions by exception handling keywords (try, catch, throw, throws and finally). 3. Use multithreading concepts to develop inter process communication. 4. Develop java application to interact with database by using relevant software component (JDBC Driver). 5. Solve real world problems using Collections. 								
UNIT-I	JAVA BASICS							
JAVA BASICS: Review of Object oriented concepts, History of Java, Java buzzwords, JVM architecture, Data types, Variables, Scope and life time of variables, arrays, operators, control statements, type conversion and casting, simple java program, constructors, methods, Static block, Static Data, Static Method String and String Buffer Classes, Using Java API Document								
UNIT-II	INHERITANCE , POLYMORPHISM, PACKAGES AND INTERFACES							
INHERITANCE AND POLYMORPHISM: Basic concepts, Types of inheritance, Member access rules, Usage of this and Super key word, Method Overloading, Method overriding, Abstract classes, Dynamic method dispatch, Usage of final keyword. PACKAGES AND INTERFACES: Defining package, Access protection, importing packages, Defining and Implementing interfaces, and Extending interfaces.								
UNIT-III	EXCEPTION HANDLING AND FILES							
EXCEPTION HANDLING: Exception types, Usage of Try, Catch, Throw, Throws and Finally keywords, Built-in Exceptions, Creating own Exception classes. I / O STREAMS AND FILES: Concepts of streams, Stream classes- Byte and Character stream, Reading console Input and Writing Console output, File Handling.								
UNIT-IV	MULTITHREADING AND JDBC							
MULTI THREADING: Concepts of Thread, Thread life cycle, creating threads using Thread class and Runnable interface, Synchronization, Thread priorities, Inter Thread communication. JDBC-Connecting to Database - JDBC Type 1 to 4 drives, connecting to a database, querying a database and processing the results, updating data with JDBC.								
UNIT-V	COLLECTION FRAMEWORK							
COLLECTION FRAMEWORK: Introduction to Java Collections, Overview of Java Collection frame work, Generics, Commonly used Collection classes- Array List, Vector, Hash table, Stack, Enumeration, Iterator, String Tokenizer, Random, Scanner, calender and Properties								
TEXT BOOKS:								
<ol style="list-style-type: none"> 1. Herbert Schildt and Dale Skrien, "Java Fundamentals – A comprehensive Introduction", McGraw Hill, 1st Edition, 2013. 2. Herbert Schildt, "Java the complete reference", McGraw Hill, Osborne, 7th Edition, 2011. 3. T.Budd, "Understanding Object- Oriented Programming with Java", Pearson Education, Updated Edition (New Java 2 Coverage), 1999. 								
REFERENCE BOOKS:								
<ol style="list-style-type: none"> 1. P.J.Dietel and H.M.Dietel , "Java How to program", Prentice Hall, 6th Edition, 2005. 2. P.Radha Krishna , "Object Oriented programming through Java", CRC Press, 1st Edition, 2007. 								

3. S.Malhotra and S. Choudhary, "Programming in Java", Oxford University Press, 2nd Edition, 2014.