Note: <mark>Removed Contents are marked in Yellow color</mark> andAdded Contents are marked in red color

SITA2301	PROGRAMMING IN JAVA LAB	L	T	P	Credits	Total Marks
		0	0	2	1	100

COURSE OBJECTIVES
➢ To implement Object Oriented concepts in Java.
➢ To implement Packages, Interfaces and Multithreading Concepts.
➢ To develop applications using lang and io packages.
➢ To design web based application.
➢ To design GUI application design using swing controls.

SUGGESTED LIST OF CYCLE -1
1. Using Classes and Objects.
2. Types of Constructors
    Default Constructor.
    Parameterized Constructor.
              Copying values from one object into another object.
    Constructor Overloading.
3. Inheritance
    Single Inheritance.
    Multilevel Inheritance.
    Hierarchical Inheritance.
4. Using Super Keyword
    To access Property.
    To access method.
    To access Constructors.
5. Using final keyword.
6. Abstract Class Programs.
              6.1 Write a java program that illustrates the example for abstract class.
7. Multiple inheritances through interface.
8. A class implements interface but one interface extends another interface.
9. Inheritance interface.
10. Default & Static method in interface.
11. Packages
                Import package.
                Import package. Class name
                Fully Qualified name.
12. Exception Handling programs.
    Write a java program that describes the exception handling mechanism.
    Write a java program that describes the user defined exception.
    Write a java program that describes multiple catch blocks.
13. Write a program to implement the concept of threading by extending Thread Class.
14. Write a program to implement the concept of threading by extending Thread Class.
15. Write a program to implement the concept of threading by implementing Runnable Interface.
16. Build and run a program in which threads are synchronized through synchronized method.

CYCLE 2
1. Write a Java Program to implement Wrapper classes and their methods.
2. By using
    a. Input Stream and Output Stream classes
    b. Reader and Writer Classes
    c. Data Output Stream and Data Input Stream classes.
3. Write a java program that describes the life cycle of an applet.
4. A java program for event handling
5. A Java Application Programming Interface by using swing controls
6. A java program for database connectivity and design the front using SWING controls.

COURSE OUTCOMES
On completion of the course, student will be able to
CO1 - Ability to implement application programs using java object oriented concepts. CO2 -
Able to implement interface, package and multithread concepts.
CO3 - Understand various built in packages and its applications.
CO4 - Knowledge on designing web based applications using applet programming. CO5 -
Create applications using Swing controls in real time applications.
CO6 - Able to connect frontend and backend using database connectivity.

SITA2302	PROGRAMMING IN JAVA LAB	L	T	P	Credits	Total Marks
		0	0	4	2	100

COURSE OBJECTIVES

- ➢ To implement Object Oriented concepts in Java
- ➢ To implement Packages, Interfaces and Multithreading Concepts.
- ➢ To develop applications using lang and io packages.
- ➢ To design web based application.
- ➢ To design GUI application design using swing controls.

CYCLE -1

1. Write a Java program using Classes and Objects.

2. Write a java Program using various types of Constructors.

3. Implement the concept of following kinds of Inheritance for Employee Application

   Single Inheritance.

   Multilevel Inheritance.

   Hierarchical Inheritance.

4. Write a Java Program to access various members of super class using Super Keyword

5. Write a java program that illustrates the example for abstract class.

7. Write a java program to find area of various shapes using interface.

8. Write a java Program to create custom package to implement calculator operations.

9. Write a java program that describes the exception handling mechanism.

10. Write a java program that describes the user defined exception.

11. Write a program to create thread by extending Thread Class or by implementing Runnable Interface.

12. Write a java program to create copy of a given object using IClonable interface**.**

CYCLE -2

13. Write a Java Program to implement Wrapper classes and their methods.

14. Write a java program for handling input and output operations using,

a.   Input Stream and Output Stream classes

b.   Reader and Writer Classes

c.   Data Output Stream and Data Input Stream classes.

15. Write a java program that describes the life cycle of an applet.

16. Write a java program to pass parameters to Applet and display the output.

17. Write a java program for event handling using awt controls

18. Write a Java program to handle Mouse and Key events

19. Create a Java Application Programming Interface by using swing controls

20. Write a java program for database connectivity using JDBC.

COURSE OUTCOMES

On completion of the course the student will be able to

CO1:   Ability to implement application programs using java object oriented concepts

CO2:   Able to implement interface, package and multithread concepts

CO3:   Understand various built in packages and its applications

CO4:   Knowledge on designing web based applications using applet programming

CO5:   Create applications using Swing controls in real time applications.

CO6:   Able to connect frontend and backend using database connectivity.