



**Course Outcomes & CO-PO-PSO Mapping and Justification**

Subject	Object Oriented Concepts	18CS45
<b>COURSE OUTCOMES:</b>		
CO No.	On completion of this course, students will be able to:	Cognitive Level
18CS45.1	Understand the basics of object-oriented programming using C++ and JAVA.	L2 Understand
18CS45.2	Apply the concept of classes, Java, JDK Components and develop Simple Java Programs.	L3 Understand /Apply
18CS45.3	Develop Simple Java Programs using inheritance and Exception handling.	L3 Develop
18CS45.4	Develop Multi-threading Programming and Interfaces.	L6 Create
18CS45.5	Develop GUI applications using Applet classes, Swing components and Event handling programs.	L6 Create

**CO-PO-PSO MAPPING**

CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
18CS45.1	3	2	1	-	2	-	-	-	-	-	-	2	2	-	-
18CS45.2	3	2	2	-	3	-	-	-	-	-	-	3	3	-	-
18CS45.3	3	2	1	-	2	-	-	-	-	-	-	2	2	-	-
18CS45.4	3	3	3	-	3	-	-	-	-	-	-	3	3	-	-
18CS45.5	3	3	3	-	3	-	-	-	-	-	-	3	3		
<b>Avg. Mapping</b>	<b>3.0</b>	<b>2.4</b>	<b>2.0</b>	<b>-</b>	<b>2.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.6</b>	<b>2.6</b>	<b>-</b>	<b>-</b>

**CO-PO-PSO JUSTIFICATION**

<b>CO No.</b>	<b>PO/PSO</b>	<b>CL</b>	<b>Justification</b>
18CS45.1	PO1	3	Strongly mapped as the students need the knowledge of basic Java syntax and semantics to apply them in building applications which needs java programming constructs
	PO2	2	Moderately mapped as problem analysis is necessary for solving /developing any application using basic java programming constructs.
	PO3	1	Slightly mapped as the process of design and implementation has to be followed while applying the concepts but students will only understand the concepts
	PO5	2	Moderately mapped as students learn modern IDE tools to execute basic Java programs (Eclipse IDE).
	PO12	2	Moderately mapped as students apply the basic concepts of java learnt in continuing professional development and new developments.
	PSO1	2	Moderately mapped as students understand fundamentals of java syntax and semantics and fluent in the use of concepts in writing the programs to build application.
18CS45.2	PO1	3	Strongly mapped as the students need the knowledge of java syntax, Use of Object-oriented Concepts, semantics and apply them in building applications
	PO2	2	Moderately mapped as problem analysis is necessary for solving /developing any application using appropriate java programming construct such as objected oriented programming features, packages and exception handling.
	PO3	2	Moderately mapped as the process of design and implementation has to be followed while applying the object-oriented concepts.
	PO5	3	Strongly mapped as students learn modern IDE tools to execute build and execute / run applications using Eclipse IDE.
	PO12	3	Strongly mapped as students apply the concepts learnt in development of new application.
	PSO1	3	Strongly mapped as students understand fundamentals of Object-oriented concepts to write a program / develop the application.
18CS45.3	PO1	3	Strongly mapped as the students need to understand the knowledge of handling multithreaded programming and event handling mechanism for developing an efficient application.
	PO2	2	Moderately mapped to problem analysis as the students need to apply threading concepts in programs / application while finding the solutions to the problem.

	PO3	1	Slightly mapped to design and development as students have limited knowledge in using multithreading and event handling concepts
	PO5	2	Moderately mapped as students learnt Eclipse IDE tool to execute java programs / applications by incorporating multithreading concepts
	PO12	2	Moderately mapped as students apply the concepts of multithreading learnt in continuing professional development and new developments.
	PSO1	2	Moderately mapped as students understand fundamentals of multithreading and event handling concepts and fluent in the use these concepts in developing / build efficient application.
18CS45.4	PO1	3	Strongly mapped as the students should have the complete knowledge of java and develop the GUI based application using Applets.
	PO2	3	Strongly mapped as the students need to perform the complete problem analysis while developing the applications related to networks, web and database.
	PO3	3	Strongly mapped as students can be able to design and develop the GUI based applications to solve real world problems
	PO5	3	Strongly mapped as students learn modern IDE tool such as Eclipse IDE to build and execute java applications.
	PO12	3	Strongly mapped as students apply the concepts learnt in developing GUI based applications in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students apply the applets-based GUI to develop/solve real world application.
18CS45.5	PO1	3	Strongly mapped as the students should have the complete knowledge of java and develop the GUI based application using Swings
	PO2	3	Strongly mapped as the students need to perform the complete problem analysis while developing the applications related to networks, web and database.
	PO3	3	Strongly mapped as students can be able to design and develop the GUI based applications to solve real world problems
	PO5	3	Strongly mapped as students learn modern IDE tool such as Eclipse IDE to build and execute java applications.
	PO12	3	Strongly mapped as students apply the concepts learnt in developing GUI based applications in continuing professional development and new developments.
	PSO1	3	Strongly mapped as students apply the swings-based GUI to develop/solve real world application.

