

## JAVA PROGRAMMING

<b>Course Code</b>	20SA8554	<b>Year</b>	III	<b>Semester</b>	I
<b>Course Category</b>	SOC	<b>Branch</b>	ECE	<b>Course Type</b>	Practical
<b>Credits</b>	2	<b>L-T-P</b>	1-0-2	<b>Prerequisites</b>	Programming With C
<b>Continuous Internal Evaluation :</b>	-	<b>Semester End Evaluation:</b>	50	<b>Total Marks:</b>	50

Course Outcomes		
Upon successful completion of the course, the student will be able to		
<b>CO1</b>	Apply object oriented principles/ Java constructs for solving problems	<b>L3</b>
<b>CO2</b>	Implement programs as an individual on different IDE/ online platforms.	<b>L3</b>
<b>CO3</b>	Develop an effective report based on various programs implemented.	<b>L3</b>
<b>CO4</b>	Apply technical knowledge for a given problem and express with an Effective oral communication.	<b>L3</b>
<b>CO5</b>	Analyze outputs using given constraints/test cases.	<b>L4</b>

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)														
	PO 1	PO 2	PO3	PO4	PO5	PO6	PO7	PO8	PO 9	PO1 0	PO11	PO1 2	PSO 1	PSO 2
<b>CO1</b>	3				3			3				3		3
<b>CO2</b>	3				3		3	3						
<b>CO3</b>	3				3			3	3	3				
<b>CO4</b>	3				3			3						
<b>CO5</b>		3			3		3	3						
Average* (Rounded to nearest integer)	<b>3</b>	<b>3</b>			<b>3</b>		<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>		<b>3</b>		<b>3</b>

Syllabus		
Expt No.	Contents	Mapped CO
1	Implement Java Programs by using Conditional Statements, Switch and loops with suitable examples.	CO1-CO5
2	Develop Java Programs Using 1D Arrays and 2D arrays.	CO1-CO5
3	Use String, String Buffer and String Tokenizer classes to develop Java programs.	CO1-CO5
4	Implement the concept of static variables, static methods and static block.	CO1-CO5
5	Implement the concept of instantiation of objects using	CO1-CO5

	Classes.	
6	Implement reusability concept through inheritance.	CO1-CO5
7	Implement concept of Polymorphism using method Overloading and overriding.	CO1-CO5
8	Develop Java programs using Abstract Class to achieve Partial abstraction.	CO1-CO5
9	Use interfaces to develop Java programs with complete Abstraction.	CO1-CO5
10	Create a package and access members from the package to Avoid naming conflicts.	CO1-CO5
11	Implement Exception handling to build robust programs.	CO1-CO5
12	Develop Java programs using Multithreading for process Synchronization.	CO1-CO5
13	Implement various data structures using Collection Framework.	CO1-CO5

### Learning Resources

#### **Text Books**

1. Herbert Schildt Java - The Complete Reference, 9<sup>th</sup> Ed., 2014, McGraw-Hill.
2. Y. Daniel Liang Pearson - Introduction to Java Programming 10<sup>th</sup> Edition

#### **e-Resources & other digital material**

1. <https://www.javatpoint.com/java-tutorial>
2. <http://www.learnjavaonline.org/>
3. [http://vtc.internshala.com/signup/course\\_details2.php?cours =java101](http://vtc.internshala.com/signup/course_details2.php?cours =java101)
4. <https://nptel.ac.in/courses/106/105/106105191/>
5. <https://www.udemy.com/course/java-tutorial/>
6. <https://www.decodejava.com/>
7. <https://www.codecademy.com/learn/learn-java>
8. <https://www.w3schools.com/java/>