

**K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22**  
**(Autonomous College Affiliated to University of Mumbai)**

Subject Code: ITC304

Subject Name: Java Programming

Date:1/2/23

Nov – Dec 2022				
B.Tech. Program: Information Technology				
Examination: SY Semester: III				
Course Code: ITC304 and Course Name: Java Programming				
Duration: 2.5 Hours			Max. Marks: 60	
Instructions:				
(1) All questions are compulsory.				
(2) Draw neat diagrams wherever applicable.				
(3) Assume suitable data, if necessary.				
		Max. Marks	CO	BT level
<b>Q 1</b>	<b>Solve any six questions out of eight:</b>	<b>12</b>		
i)	Illustrate the Abstraction and Encapsulation in Java.	2	CO1	U
ii)	Differentiate between Arraylist and vector.	2	CO2	AN
iii)	Define the package and its advantage in Java.	2	CO3	U
iv)	Explain finally keyword with example.	2	CO4	U
v)	Differentiate between AWT and Swing.	2	CO5	AN
vi)	Difference between the Abstract class and Interface.	2	CO3	AN
vii)	List the canvas class methods in JavaFX	2	CO6	U
viii)	Describe the static variable and static method.	2	CO2	U
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Write a program to display following pattern <pre> 1 1 2 1 2 3 1 2 3 4 </pre>	4	CO1	A
ii)	Describe the Constructor and its types. Explain with example.	4	CO2	A
iii)	Describe interface. Write a java program for implementing interface in java.	4	CO3	A
iv)	Sketch the diagram for lifecycle of thread and demonstrate it in detail.	4	CO4	AN
v)	Describe Java Database Connectivity with MySQL. Apply it with example.	4	CO5	A

vi)	Describe scene graph in JavaFX. Design GUI for creating Button.	4	CO6	A
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Explain the try-catch Exception handling technique. Apply it with example.	8	CO4	A
ii)	Write a Java Program to create a Student Profile form using Swing controls.	8	CO5	C
iii)	Describe the Inheritance and Polymorphism in Java. Write a program to check whether the entered number is palindrome or not.	8	CO1	C
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	What is method overriding? Give its usage and rules. Demonstrate it using the java program.	8	CO3	A
ii)	Create program to draw various shapes on Canvas using JavaFX.	8	CO6	C
iii)	Create a program to display transpose of square matrix.	8	CO2	C

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