

May-June 2023 (B.Tech / M.Tech.) Program: Information Technology Examination: SY Semester: III Course Code: ITC304 and Course Name: Java Programming Duration: 2.5 Hours <span style="float: right;">Max. Marks: 60</span>				
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)	Define inheritance with example	2	CO1	U
ii)	Discuss the rules of defining constructors.	2	CO2	U
iii)	What is wrapper class.	2	CO2	U
iv)	Differentiate between Abstract Class vs Interface.	2	CO3	AN
v)	Write a java code which will handle division of a number by zero.	2	CO4	U
vi)	What are the different ways to declare a thread?	2	CO4	U
vii)	Discuss AWT vs Swings.	2	CO5	U
viii)	What is JavaFX?	2	CO6	U
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Discuss Iteration Statements with the help of example.	4	CO1	AN
ii)	What are the differences between Array and ArrayList in java? Give example of each.	4	CO2	A
iii)	Write a program to create a user-defined package? And explain it.	4	CO3	A
iv)	Design Login form using swing.	4	CO5	C
v)	Explain Thread life cycle with neat diagram.	4	CO4	U
vi)	Discuss JavaFX control.	4	CO6	U
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		



i)	Explain interface. Write a java program for implementing interface in java.	8	CO3	A
ii)	Explain following terms with example. a) Method overloading, b) Vector	8	CO2	A
iii)	Write a program for two threads one displays odd numbers from 1 to 10 and other displays even numbers from 1 to 10, use sleep() method to display number sequentially	8	CO4	C
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Explain synchronization in java with example.	8	CO4	A
ii)	Design vehicle registration page using AWT and Swing.	8	CO5	A
iii)	Discuss I/O Streams in detail with example.	8	CO4	AN

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