

Code: 20IT3404

**II B.Tech - II Semester – Regular / Supplementary Examinations  
MAY - 2023**

**PROGRAMMING WITH JAVA  
(INFORMATION TECHNOLOGY)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
<b>UNIT-I</b>					
1	a)	Construct a program that compares the given arrays lexicographically.	L3	CO2	7 M
	b)	Prepare a JAVA program that finds all of the prime numbers between 2 and 100.	L3	CO2	7 M
<b>OR</b>					
2	a)	Prepare a recursive method that displays Fibonacci sequence.	L3	CO2	7 M
	b)	Why might you need to use a static block? Interpret with example.	L2	CO1	7 M
<b>UNIT-II</b>					
3	a)	Explain how inheritance, method overriding, and abstract classes are used to support polymorphism.	L2	CO2	7 M

	b)	'Super is used to invoke immediate parent class constructor'. Interpret this statement with example program.	L3	CO2	7 M
<b>OR</b>					
4	a)	Explain how many classes can implement an interface? Explain how many interfaces can a class implement?	L2	CO2	7 M
	b)	Suppose the input is '1 2 3 4 5 6 7 8 9 10'. Construct a JAVA program to print the sum of even numbers from the given input. Use appropriate methods of StringTokenizer class to divide the input into tokens.	L3	CO2	7 M
<b>UNIT-III</b>					
5	a)	Explain different ways that the members of a package can be used in JAVA. Give suitable example.	L2	CO3	7 M
	b)	Explain, what does the JVM do when an exception occurs? How do you catch an exception?	L2	CO3	7 M
<b>OR</b>					
6	a)	Illustrate the creation of multiple threads in JAVA with example.	L3	CO3	7 M
	b)	Analyze the use of multiple catch statements with example program.	L4	CO3	7 M
<b>OR</b>					

<b>UNIT-IV</b>					
7	a)	Write a program to demonstrate scroll bars.	L3	CO4	7 M
	b)	Write a program to demonstrate the key event handlers.	L3	CO4	7 M
<b>OR</b>					
8	a)	Write a program to demonstrate text field.	L3	CO4	7 M
	b)	Write a program to demonstrate inner class.	L3	CO4	7 M
<b>UNIT-V</b>					
9	a)	What method obtains the index of the first selected item in JList? Illustrate with example.	L3	CO4	7 M
	b)	Construct a GUI application, with text field to take input from the user, a button with label 'ClickMe'. If you click on button, your application should display factorial of input number in another text field.	L3	CO4	7 M
<b>OR</b>					
10	Illustrate the following swing components with proper examples. Also write constructors and methods of each component. i. JCheckBox    ii. JRadioButton iii. JComboBox		L3	CO4	14 M