U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

April 2024 Semester End Main Examinations

Programme: B.E. **Semester: III**
Branch: Computer Science and Engineering **Duration: 3 hrs.**
Course Code: 23CS3PCOOJ / 19CS3PCOOJ **Max Marks: 100**
Course: Object Oriented Java Programming

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

			UNIT - I	*CO*	*PO*	Marks
1	a)		Explain the three OOP's principles with example program.	*CO1*	*PO1*	**06**
	b)		Distinguish between method overloading and method overriding in java.	*CO2*	*PO2*	**08**
	c)		The marks scored by 10 students are {90, 43, 67, 87, 45, 82, 91, 88, 67 and 55}. Develop a program to calculate the highest marks scored using for loop in java.	*CO3*	*PO3*	**06**
			UNIT - II			
2	a)		Explain Inheritance and it'svarious types with an example.	*CO1*	*PO1*	**10**
	b)		Write a java program to show working of user defined generic classes.	*CO1*	*PO1*	**05**
	c)		Illustrate an example to concatenate strings using String Buffer	*CO1*	*PO1*	**05**
			UNIT - III			
3	a)		Explain exception handling mechanism provided in java. Write a java program to handle exception.	*CO1*	*PO1*	**08**
	b)		Write a java program to create user defined exception and demonstrate its use.	*CO1*	*PO1*	**06**
	c)		Explain Interfaces in java with example.	*CO1*	*PO1*	**06**
			OR			
4	a)		Explain the steps to create a package in java with an example.	*CO1*	*PO1*	**08**
	b)		Briefly explain the role of interfaces while implementing multiple inheritance.	*CO1*	*PO1*	**07**
	c)		Demonstrate the different levels of access protection available for package and their implications.	*CO3*	*PO3*	**05**

			UNIT - IV			
	5	a)	Explain the methods of thread class, getName(), getPriority(), isAlive(), Join().	*CO1*	*PO1*	**08**
		b)	Demonstrate the thread priorities in java with example program.	*CO1*	*PO1*	**08**
		c)	Write a java code to illustrate the standard input and output streams	*CO3*	*PO3*	**04**
			OR			
	6	a)	Explain PushbackInputStream with an example program.	*CO1*	*PO1*	**6**

		b)	Analyze the program below and write the expected output.
			class PrintfDemo {
			public static void main(String args[]) {
			System.out.println("Here are some numeric values " +
			"in different formats.\n");
			System.out.printf("Various integer formats: ");
			System.out.printf("%d %(d %+d %05d\n", 3, -3, 3, 3);
			System.out.println();
			System.out.printf("Default floating point format: %f\n", 1234567.123);
			System.out.printf("Floating point with commas: %,f\n", 1234567.123)
			System.out.printf("Negative floating-point default: %,f\n", -1234567.123);
			System.out.printf("Negative floating point option: %,(f\n", -1234567.123);
			System.out.println();
			System.out.printf("Line up positive and negative values:\n");
			System.out.printf("% ,.2f\n% ,.2f\n", 1234567.123, -1234567.123);
			} }
				CO2	*PO2*	**6**

		c)	Develop a java program to create three threads using runnable Interface. Make all threads to execute for five iterations. Set the name of the three threads as “FIRST”, “SECOND”, “THIRD”. Make the second thread to terminate for the 4th Iteration and last thread to sleep for two seconds after two iterations.	*CO3*	*PO3*	**8**
			UNIT - V			
	7	a)	What are Events, Event Listener and Event Source. Explain delegation event model used to handle events in java.	*CO1*	*PO1*	**07**
		b)	Write a java program to handle mouse dragged and mouse moved events.	*CO3*	*PO3*	**07**
		c)	Write a java program to demonstrate any three graphics methods.	*CO3*	*PO3*	**06**

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