

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, NOV/DEC 2025**Third Semester****Biomedical Engineering****CS3391 / UCST24302 - Object Oriented Programming****(Common to Computer Science and Engineering & Information Technology)****Regulations – 2021 & 2024****Duration : 3 Hrs****Maximum : 100 Marks****PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BLT	CO	Marks
1.	Compare break and continue statement in java.	L2	1	2
2.	Why is destructor not used in Java?	L2	1	2
3.	Compare method overloading and method overriding.	L2	2	2
4.	Java offers a method for achieving multiple inheritances through interface. Justify.	L2	2	2
5.	Compare throw and throws in java exception handling.	L2	3	2
6.	List the states of thread in java.	L1	3	2
7.	Differentiate byte stream and character stream in java.	L2	4	2
8.	Mention any four advantages of java generics.	L1	4	2
9.	Define event handling in java.	L1	5	2
10.	Write the syntax to create a menu instance.	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a Create a simple library management system that can manage books. Define a Book class and Library class with attributes and methods to interact with book objects.	L3	1	16
	b Write a Java program to create a class called Pen with instance variables name and color. Implement a parameterized constructor that takes name and color as parameters and initializes the instance variables. Print the values of the variables.	L3	1	16
12.	a i Explicate the usage of super keyword in constructors with an example.	L2	2	6
	ii Write a Java program to create a base class Sports with a method called play(). Create three subclasses: Football, Basketball, and Rugby. Override the play() method in each subclass to play a specific statement for each sport.	L3	2	10

Or

	b	i	Summarize the member access in java packages with an example.	L2	2	6
		ii	Create an interface for geometric shapes and implement it in multiple classes Circle, Triangle and Rectangle representing different shapes. The shapes should be able to calculate their area and perimeter.	L3	2	10
13.	a	i	Explain the concept of creating user defined exception in java with an example.	L2	3	8
		ii	Write a Java program that throws an Arithmetic Exception, File Not Found Exception and catch it using a try-catch block.	L3	3	8
			Or			
	b	i	Compare creation of thread by extending class and implementing interface.	L2	3	8
		ii	Write a Java program to create and start multiple threads that increment a shared counter variable concurrently.	L3	3	8
14.	a	i	Explicate the constructors and methods in Buffered Input Stream class with an example.	L2	4	8
		ii	Write a java program to read the contents of a file and display it in console.	L3	4	8
			Or			
	b	i	Compare String and StringBuffer in java with an example.	L2	4	8
		ii	Write a Java program implementing String to	L3	4	8
			a) get the character at the given index within the string.			
			b) count chars in a string			
			c) compare two strings			
			d) test if a given string contains the specified sequence of char values.			
15.	a	i	Explain any two mouse handling events in java with example.	L2	5	8
		ii	Write a JavaFX application that displays a "Hello, JavaFX!" message in a window.	L3	5	8
			Or			
	b	i	Explain HBox layout in java with simple example.	L2	5	8
		ii	Write a JavaFX application that creates a button. On clicking the button, display an alert message.	L3	5	8