

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)
B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY
2025
Third Semester
Computer Science and Engineering
CS3391 – Object Oriented Programming
(Common to Biomedical Engineering & Information Technology)
Regulations - 2021

Duration : 3 Hrs**Maximum : 100 Marks****PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BLT	CO	Marks
1.	Write the structure of a typical Java program.	L1	1	2
2.	Write a Java program to check whether a given number is odd or even.	L3	1	2
3.	Differentiate between classes and interfaces.	L2	2	2
4.	State the use of super() and final modifiers in Java.	L1	2	2
5.	Differentiate between checked and un-checked exception.	L2	3	2
6.	Create a thread called MyThread and set its priority to 2.	L6	3	2
7.	Write statements to create a file stream that concatenates two existing files.	L3	4	2
8.	What is the purpose of bounded types in generics?	L2	4	2
9.	Name any two text input controls in JavaFX.	L1	5	2
10.	Why might ScrollPane be preferred than using nested layout panes for large content?	L4	5	2

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

Q.No	Questions	BLT	CO	Marks
11.	a i Discuss the object-oriented programming paradigms. How does OOP differ from procedural programming?	L1	1	8
	ii Explain classes in java with static and instance methods with an example program.	L3	1	8
	Or			
	b i Explain the various control statements in Java and give an example of when each can be used.	L2	1	8
	ii Develop a Java class bank account that includes fields for account number, balance, and methods to deposit and withdraw money. Implement constructors, access specifiers, and static methods if necessary.	L3	1	8
12.	a i What is Inheritance? What are the various types of inheritance in Java? Explain any two in detail.	L2	2	8
	ii What is a package? Explain the process of importing and exporting packages with the help of an example program.	L2	2	8

Or

	b i	Explain in detail method overloading and method overriding with suitable example code.	L2	2	8
	ii	What are interfaces? Explain how interfaces can be used for achieving Multiple Inheritance.	L2	2	8
13.	a i	What is an Exception? Explain exception handling concepts with an example.	L2	3	8
	ii	Describe wrapper classes in Java and explain their role in converting primitive data types into objects. Provide examples of wrapper classes such as Integer, Double, and Character	L3	3	8
		Or			
	b i	Discuss multi-threading in java with simple example program and explain thread states.	L2	3	8
	ii	How is thread synchronization achieved in Java? Explain Inter-Thread with producer-consumer problem.	L3	3	8
14.	a i	Discuss various classes involved in Java I/O stream hierarchy.	L1	4	8
	ii	Write a Java program to copy content from one file to another using FileReader and FileWriter.	L3	4	8
		Or			
	b i	What are generics in Java? Explain generic methods and classes with suitable examples.	L2	4	8
	ii	Identify the differences of String, StringBuffer, and StringBuilder with examples.	L4	4	8
15.	a i	Recall the different types of event handling mechanisms available in JavaFX and explain in detail.	L1	5	8
	ii	Discuss the differences between CheckBox, RadioButton, and ToggleButton in JavaFX with suitable examples.	L6	5	8
		Or			
	b i	Define the following JavaFX layout panes and write a short note on each: a) HBox b) VBox c) BorderPane d) FlowPane	L1	5	8
	ii	Create a JavaFX form that includes multiple controls like TextField, CheckBox, ComboBox, and submit button, and handles the button click event.	L6	5	8