CBCS SCHEME

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22MCA22

Second Semester MCA Degree Examination, June/July 2025
Object Oriented Programming Using Java

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Discuss object oriented concepts? Explain any five characteristics of object oriented programming.	10	L1	CO1
	b.	Demonstrate java program using switch to find i) Area and circumference of a circle by accepting radius from user. ii) To accept a number and find whether the number is prime or not.	10	L1	CO2
		OR			
Q.2	a.	Differentiate between while and do-while loop? Demonstrate a java program to find the factorial of a given number using while loop.	10	L1	CO2
	b.	Demonstrate a java program to constructor overloading and method overloading.	10	L2	CO2
		Module – 2			
Q.3	a.	Define inheritance? Explain with example types of inheritance.	10	L1	CO4
	b.	Demonstrate a java program to implement multilevel inheritance.	10	L2	CO4
		OR			
Q.4	a.	Explain method over riding and abstract method. Give example each.	10	L2	CO3
	b.	Demonstrate a java program to implement inner class and its access protection.	10	L2	CO3
		Module – 3			
Q.5	a.	Explain interface and abstract class? Illustrate each with proper examples.	10	L2	CO3
	b.	Demonstrate a java program on extends interface.	10	L2	CO3
		OR			
Q.6	a.	Illustrate with an example how to access package from another package.	10	L2	CO3
	b.	Demonstrate a java program by creating a package 'Student.MCA' in your current working directory. i) Create a default class student in the above package with following attributes like name, age, gender. ii) Have method for storing as well as displaying details.	10	L2	CO3
		Module – 4			
Q.7	a.	What is Exception in java? Explain hierarchy of java exception classes.	10	L2	CO5
	b.	Demonstrate java program to implement arithmetic exception and array index out of bounds exception.	10	L2	CO5
		OR			
Q.8	a.	Illustrate with example java multicatch block.	10	L2	CO5
	b.	Demonstrate a java program to create custom exception.	10	L2	CO5
		Module – 5			
Q.9	a.	Differentiate between AWT and Swing?	10	L2	CO6
	b.	Demonstrate a java program to draw various shapes in the created window.	10	L2	CO6
		OR			
Q.10	a.	Explain with example Jframe and Jpancl.	10	L2	CO7
	b.	Demonstrate a java program applet to handle mouse event using mouse listener interface.	10	L2	CO7

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