CBCS SCHEME

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BCS306A

Third Semester B.E./B.Tech. Degree Supplementary Examination, June/July 2024

Object Oriented Programming with 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.	List and explain OOP's principles in JAVA.	8	L2	CO1

	b.	Class Helloworld {
		Public static void main (String [ ] args) {
		int a ;
		for (a = 0 ; a < 3 ; a + +)
		{
		int b = -1 ;
		system.out.println (" " +b) ;
		b = 50 ;
		system.out.println (" " +b) ;
		}
		system.out.println ("Hello, world!") ;
		}
		}
		What is the output of the above code?
			6	L3	CO1

	c.	Develop a program to find an average among the elements{1, 2, 3, 4, 5} using for each loop in JAVA.	6	L3	CO1
		OR			
Q.2	a.	How arrays are defined and used in Java? Give examples.	6	L2	CO1
	b.	Briefly explain the various primitive data types used in Java.	6	L2	CO1
	c.	Explain the following jump statements : (i) Break (ii) Continue	8	L2	CO1
		Module – 2			
Q.3	a.	Explain the constructor method and parameterized constructors methods with suitable examples.	10	L3	CO2
	b.	Discuss the significant features of the following keyword : (i) this (ii) static	4	L2	CO2
	c.	What is method overloading? Illustrate the concept of method overloading using java program.	6	L2	CO2
		OR			
Q.4	a.	Write a java program to illustrate : (i) Passing object as parameters. (ii) Returning objects	10	L3	CO2
	b.	A class called Employee, which models an employee with an ID, name and salary. The method raiseSalary (percent) increases the salary by the given percentage. Develop the Employee Class and suitable main method for demonstration.	10	L3	CO2

		Module – 3			
Q.5	a.	With example, give two uses of super.	6	L2	CO3
	b.	What is dynamic method dispatch? Write a simple example that illustrates dynamic method dispatch.	8	L2	CO3
	c.	Briefly explain the final keyword with inheritance.	6	L2	CO3
		OR			
Q.6	a.	What is an interface? Briefly explain the general forms of an interface.	6	L2	CO3
	b.	Discuss the significance of nested interfaces in Java.	8	L2	CO3
	c.	With proper syntax, explain the method overriding.	6	L2	CO3
		Module – 4			
Q.7	a.	What is a package? What are the steps involved in creating user defined packages? Explain.	10	L2	CO4
	b.	Define exception and explain the exception handling mechanism with an example.	6	L2	CO4
	c.	Discuss about throw and throws features.	4	L2	CO4
		OR			
Q.8	a.	Write a program to illustrate for nested fry statements.	6	L2	CO4
	b.	Enlist any three java Built-in exceptions and explain.	6	L2	CO4
	c.	What is chained exception? Give an example that illustrates the mechanics of handling chained exceptions.	8	L2	CO4
		Module – 5			
Q.9	a.	Write a program to create multiple threads in JAVA.	10	L3	CO5
	b.	With syntax, explain the use of isAlive ( ) and join ( ) methods.	6	L3	CO5
	c.	Discuss the significance of thread priorities in JAVA.	4	L2	CO5
		OR			
Q.10	a.	With Syntax, explain values ( ) and value of ( ) methods.	6	L2	CO4
	b.	List and Discuss the Numeric type wrappers methods.	6	L2	CO4
	c.	Write a program to demonstrate the following : (i) A type wrapper (ii) Autoboxing/Unboxing	8	L2	CO4

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