Basavarajeswari Group of Institutions

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

USN											Course Code	2	3	M	C	A	2	2

Second Semester MCA Degree Examinations, November 2024

OBJECT ORIENTED PROGRAMMING WITH JAVA

Duration: 3 hrs **Max. Marks: 100**

Note: ***1. Answer any* FIVE *full questions, choosing* ONE *full question from each module.***
2. Missing data, if any, may be suitably assumed

Q. No		***Question***	***Marks***	*(RBTL:CO: PI)*
		MODULE – 1		
1.	**a.**	Explain all primitive data types of Java with examples.	**10**	(2:1:2.2.1)
	b.	Explain any five types of operators in Java.	**10**	(2:1:2.2.1)
		(OR)		
2.	**a.**	Explain type conversion and casting with an example.	**10**	(2:1:2.2.1)
	b.	Explain arrays and its types. Explain different ways to declare arrays.	**10**	(2:1:2.2.1)
		MODULE – 2		
3.	**a.**	Explain general form of classes and creating instance of a class with sample code.	**10**	(2:2:2.2.1)
	b.	Write a Java program that demonstrates method overloading. Create a class called math operations that has the overloaded methods named add.	**10**	(2:2:2.2.1)
		(OR)		
4.	**a.**	Explain the different types of constructors in Java with an example.	**10**	(2:2:2.1.1)
	b.	Write a short note on abstract class and final keyword in Java.	**10**	(2:2:2.1.1)
		MODULE – 3		
5.	**a.**	Write a Java program that demonstrates the use of packages. Create a package named mypackage, define a class inside it, and use that class in another Java file.	**10**	(2:3:2.1.1)
	b.	Briefly explain exception, exception types and exception handling in Java.	**10**	(2:3:2.1.1)
		(OR)		
6.	**a.**	Write a Java program that demonstrates the use of interfaces and how to implement interfaces in a class.	**10**	(2:3:2.1.1)
	b.	Explain the different clauses used in exception handling with example.	**10**	(2:3:2.1.1)
		MODULE – 4		
7.	**a.**	What is a generic class and why is it used in Java? Provide the general syntax for defining a generic class, explain each component.	**10**	(2:4:2.1.1)
	b.	Write a Java program that demonstrates the use of lambda expressions and variable capture.	**10**	(2:4:2.1.1)
		(OR)		

Note: (**RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI - Performance Indicator)**

8.	**a.**	What is a generic interface in Java? Demonstrate how generic interface differ from a regular interface.	**10**	(2:4:2.1.1)
	b.	Write a Java program that demonstrates how to pass lambda expressions as arguments to a method.	**10**	(2:4:2.1.1)

MODULE – 5

9.	**a.**	Explain methods defined by List Interface.	**10**	(2:5:2.1.1)
	b.	Write the steps to connect a Java program to database with an example program.	**10**	(2:5:2.1.1)

(OR)

10.	**a.**	Explain briefly ArrayList class and LinkedList class.	**10**	(2:5:2.1.1)
	b.	What is JDBC in Java and explain its primary purpose.	**10**	(2:5:2.1.1)

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