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R22

Course Code: A6IT02

MLR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

II B.Tech I Semester Regular Examinations, February-2024

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(Common to CSC, CSM, CSE & IT)

Time: 3 Hours.

Max. Marks: 60

Note: 1. This question paper contains two parts A and B.

2. Part- A is Compulsory which carries 10 marks. Answer all Questions in part A.

3. Part – B consists 5 units. Answer any one question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

10 x 1M=10Marks

1.	a)	Define implicit type casting.	1M	CO1	BL1
	b)	How Strings are Immutable? Explain?	1M	CO1	BL2
	c)	Define Abstract class?	1M	CO2	BL1
	d)	Describe the use of super keyword?	1M	CO2	BL2
	e)	Define Exception?	1M	CO3	BL1
	f)	What are stream classes?	1M	CO3	BL1
	g)	Define thread?	1M	CO4	BL1
	h)	What is JDBC?	1M	CO4	BL1
	i)	What is a data structure?	1M	CO5	BL1
	j)	What method do you use to add all the elements from one collection to another collection?	1M	CO5	BL1

PART- B

5 x 10M=50Marks

2		Illustrate the object-oriented features of Java with examples?	10M	CO1	BL2
OR					
3	a)	Illustrate various types of constructors?	5M	CO1	BL2
	b)	Write a static method to find the number of vowels in a given String?	5M	CO1	BL3
OR					
4	a)	Illustrate constructor chaining using this() method with an example?	5M	CO2	BL2
	b)	Demonstrate multiple inheritance in java using interfaces?	5M	CO2	BL2
OR					
5	a)	What is polymorphism? Explain dynamic binding with suitable example program?	5M	CO2	BL2
	b)	Define the terms abstract classes and interfaces. What are the similarities and differences between abstract classes and interfaces?	5M	CO2	BL2

6		Write a program that meets the following requirements: Creates an array with 100 randomly chosen integers. Prompts the user to enter the index of the array, then displays the corresponding element value. If the specified index is out of bounds, display the message Out of Bounds. Write appropriate exceptions?	10M	CO3	BL3
OR					
7	a)	Illustrate exception handling technique with suitable example program.	5M	CO3	BL2
	b)	How do you throw an exception? Can you throw multiple exceptions in one throw statement?	5M	CO3	BL3
8	a)	Describe the two ways of implementing thread in Java with suitable examples?	5M	CO4	BL2
	b)	Discuss the following drivers in JDBC i) Type-1 driver ii) Type-4 driver	5M	CO4	BL2
OR					
9	a)	Differentiate between thread based multitasking and process based multitasking?	5M	CO4	BL3
	b)	Write a Java program to perform update operation in JDBC.	5M	CO4	BL3
10	a)	Describe the Java Collections Framework with suitable examples?	5M	CO5	BL2
	b)	Illustrate the significance of ArrayList in creating array of objects with an example?	5M	CO5	BL3
OR					
11	a)	How do you create an instance of Stack and perform following Stack operations. i) push() ii) pop() iii) size()	5M	CO5	BL2
	b)	How do you create an instance of Vector? Discuss all vector methods with an example?	5M	CO5	BL2

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