GUJARAT TECHNOLOGICAL UNIVERSITY
B.VOC- SEMESTER–II EXAMINATION – WINTER 2024

Subject Code:1120503   **Date:27-12-2024**
Subject Name: OOPs with Java
Time:02:30 PM TO 04:30 PM   **Total Marks:50**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	What is the significance of JDK being provided as an MSI installer for Java development?	**05**
	(b)	How do parent packages function, and why are they important in a package hierarchy?	**05**
Q.2	**(a)**	What does it mean to override a method in a subclass, and how does it differ from overloading?	**05**
	(b)	How is type conversion achieved through casting, and what are the types of casting?	**05**
		OR	
	(b)	What does it mean to nest methods within each other in Java, and how is it applied?	**05**
Q.3	**(a)**	How does Java control the visibility of class members, and what are the different levels of access?	**05**
	(b)	What techniques can be used to arrange and align UI elements in a Java applet?	**05**
		OR	
Q.3	**(a)**	How is the Runnable interface used in Java for multi-threading, and how do you implement it?	**05**
	(b)	In Java, how do you create and manipulate strings in both one-dimensional and two-dimensional arrays?	**05**
Q.4	**(a)**	What are the techniques to stop or block a thread in Java, and how do they work?	**05**
	(b)	What are the different methods for achieving synchronization in Java, and when should they be used?	**05**
		OR	
Q.4	**(a)**	What are abstract methods in Java, and how do they differ from regular methods?	**05**
	(b)	What methods are available for retrieving user input in a Java applet?	**05**
Q.5	**(a)**	Can you explain the syntax and functionality of the switch statement in Java?	**05**
	(b)	In Java, how do you use wrapper classes to handle null values and collections?	**05**
		OR	
Q.5	**(a)**	How do you define and implement constructors in a Java class?	**05**
	(b)	What are the implications of class hiding in Java, and when might it occur?	**05**

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