GUJARAT TECHNOLOGICAL UNIVERSITY
MCA (INTEGRATED) - SEMESTER–III EXAMINATION – WINTER 2020

Subject Code:2638601   **Date:09/02/2021**

Subject Name:Object Oriented Programming in JAVA

Time:10:30 AM TO 12:30 PM   **Total Marks: 56**

Instructions:
1. **Attempt any FOUR questions out of EIGHT questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	(a)	**Define Following terms(any seven)**	07
		(1) Byte code	
		(2) Scanner class	
		(3) Polymorphism	
		(4) Enum data type	
		(5) "this" keyword	
		(6) Concrete class	
		(7) Garbage Collection	
		(8) Shadowing Variable	
	(b)	Explain any two of followings with the help of example.	07
		1. If….else if…..else	
		2. Switch case	
		3. While loop	
Q.2	(a)	Explain static block and class initialize block with example.	07
	(b)	Why Java's main () method is public, static and also has one argument?	07
Q.3	(a)	What is Exception? Explain exception handling by creating custom exception class.	07
	(b)	What is package? Explain "java.util" package with example.	07
Q.4	(a)	What is method overriding? Explain with example.	07
	(b)	Explain abstract, final and static keyword with example.	07
Q.5	(a)	What is an interface? What role does an interface play in multiple inheritances? Explain with example.	07
	(b)	What is collection framework? Discuss Map interface with example.	07
Q.6	(a)	What is difference between Vector and ArrayList? How the Enumeration interface is useful in Java explain with Example?	07
	(b)	Explain widening, narrowing, boxing and unboxing conversion with example.	07
Q.7	(a)	What is thread? How many ways thread can be created in java? Write down steps for creating thread.	07
	(b)	What is generic class? Explain generic method with example.	07
Q.8	(a)	What is Stream? Explain different types of stream.	07
	(b)	Create a class "Vehicle" with instance variable vehicle_type. Inherit the class in a class called "Car" with instance model_type, company name etc. display the information of the vehicle by defining the display() in both super and sub class.	07

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