GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–IV (NEW) EXAMINATION – WINTER 2021

Subject Code:3140705   **Date:05/01/2022**
Subject Name:Object Oriented Programming -I
Time:10:30 AM TO 01:00 PM   **Total Marks: 70**
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 are syntax errors (compile errors), runtime errors, and logic errors?	**03**
	(b)	What is Type Casting? Explain widening and narrowing type casting.	**04**
	(c)	Explain Data Types in detail with example.	**07**
Q.2	**(a)**	What is an interface? Explain with example.	**03**
	(b)	Explain "Passing argument by values" with example.	**04**
	(c)	Explain File class with its methods.	**07**
		OR	
	(c)	What is polymorphism? Explain dynamic binding with example.	**07**
Q.3	**(a)**	Explain abstract class with example.	**03**
	(b)	Explain Method Overloading and Overriding.	**04**
	(c)	Write a program that counts the number of words in a text file. The file name is passed as a command line argument. The words in the file are separated by white space characters.	**07**
		OR	
Q.3	**(a)**	Differentiate String class and StringBuffer class.	**03**
	(b)	Explain following keywords (1) super (2) this	**04**
	(c)	Write a program that illustrates interface inheritance. Interface P is extended by P1 and P2. Interface P12 inherits from both P1 and P2. Each interface declares one constant and one method. class Q implements P12. Instantiate Q and invoke each of its methods. Each method displays one of the constants.	**07**
Q.4	**(a)**	Explain visibility modifiers.	**03**
	(b)	Explain following controls (1) Checkbox (2) Radio Button (3) Textfield (4) Label	**04**
	(c)	What is an Exception? Explain try, catch and finally with example.	**07**
		OR	
Q.4	**(a)**	What is the keyword "throw" used for? What is the keyword "throws" used for?	**03**
	(b)	What is constructor? Explain constructor overloading.	**04**
	(c)	Explain different layout panes used in JavaFX.	**07**
Q.5	**(a)**	Differentiate Text I/O and Binary I/O	**03**
	(b)	Explain Inner class with example.	**04**
	(c)	What is thread? Describe the complete life cycle of thread.	**07**
		OR	

Q.5 **(a)** Compare List and Set. **03**

(b) Explain static variable and static method with example. **04**

(c) Explain Thread Synchronization with example. **07**

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