GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2014

Subject code: 1722310   **Date: 25-06-2014**
Subject Name: Object Oriented Programming
Time: 02:30 pm - 05:00 pm   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	List and explain features of Object Oriented Programming in detail	**07**
	(b)	Compare and contrast overloading and overriding methods.	**07**
Q.2	**(a)**	Create a 3-level inheritance hierarchy. Each class in the hierarchy should have a finalize( ) method, and it should properly call the base-class version of finalize().	**07**
	(b)	How can a programmer defines a class which cannot be inherited? Give an example.	**07**

OR

	(b)	Explain about final classes, final methods and final variables with example.	**07**
Q.3	**(a)**	Write a program that will read an unspecified number of integers and will determine how many positive and negative values have been read. Your program ends when the input is 0.	**07**
	(b)	Explain about the abstract class with example program.	**07**

OR

Q.3	**(a)**	Write a program that will compute the following series: $1/1 + 1/2 + 1/2^2 + ... + 1/2^n.$	**07**
	(b)	What is interface? Write a program to demonstrate how interfaces can be extended.	**07**
Q.4	**(a)**	What are the two methods to create threads? Compare them. Explain them with an example Java program.	**07**
	(b)	What is package? How do you create a package? Explain about the access protection in packages?	**07**

OR

Q.4	**(a)**	Explain with example how threads with different priorities execute in environment which supports priorities and which doesn∉t support priorities.	**07**
	(b)	Write a note on Exception handling mechanisms in java.	**07**
Q.5	**(a)**	Write a program to illustrate the usage of the following methods of StringBuffer class. Explain the output in each case. Delete(), setChatAt(), deleteChatAt(), append(), chatAt(), getChars().	**07**
	(b)	What is applet? Describe the life cycle of the applet. What are the demerits of the applet.	**07**

OR

Q.5	**(a)**	Develop the class diagram of School Management System.	**07**
	(b)	Develop an applet that receives five numeric values as inputs from the user and then displays the sorted values on the screen. Write a HTML program and test the applet.	**07**

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