Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV (OLD)• EXAMINATION – WINTER 2016

Subject Code: 140705 **Date: 25/11/2016**

Subject Name: Object Oriented and Programming with C++

Time:02:30 PM to 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)**	Difference between object oriented programming and procedure oriented programming in Detail.	**07**
	(b)	Describe various operators in C++.	**07**
Q.2	**(a)**	Describe, with examples, the uses of enumeration data types.	**07**
	(b)	Explain the visibility and scope resolution operation with example.	**07**
		OR	
	(b)	Explain the concept of classes and objects in C++. Also, explain the different types of calling the member functions of a class.	**07**
Q.3	**(a)**	Difference between Macro and Inline functions with example.	**07**
	(b)	Explain static data and function members with example.	**07**
		OR	
Q.3	**(a)**	Write a program in C++ to find the sum of two entered complex numbers from different classes and display the sum using a common friend function of both classes.	**07**
	(b)	Write a C++ program that overloads + operator to add two complex numbers.	**07**
Q.4	**(a)**	What is a constructor? Which are the special characteristics of constructor Functions? What is the need of “do-nothing” implicit constructor? When the Destructor function invoked?	**07**
	(b)	Explain various forms of inheritance with suitable diagrammatic illustrations.	**07**
		OR	
Q.4	**(a)**	What is Exception? Explain Exception Handling Mechanism. Write a program That demonstrates use of multiple catch. Add at least three catch block in your Program.	**07**
	(b)	Write a Program that illustrate the concept of fill(), width().	**07**
Q.5	**(a)**	Write a Program for swapping two values of different data types using template.	**07**
	(b)	Explain STL with its core components.	**07**
		OR	
Q.5	**(a)**	Define with examples (1) Object (2) polymorphism. (3) Binary file (4) virtual functions	**07**
	(b)	Explain Function : seekp(), tellg(), Precision(), Malloc	**07**

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