GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–IV (NEW) EXAMINATION – WINTER 2018

Subject Code:2142005   **Date:12/12/2018**

Subject Name:Programming Methodology using 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)**	Define the Following: 1. Scope Resolution Operator 2. cout and cin 3. <iostream.h>	**03**
	(b)	List down applications of OOP.	**04**
	(c)	Explain features of Object Oriented Programming.	**07**
Q.2	**(a)**	Explain Inline Function with example.	**03**
	(b)	Explain new operator. Also explain advantages of new operator over malloc().	**04**
	(c)	Explain Function Overloading with example.	**07**
		OR	
	(c)	Explain Friend function with example.	**07**
Q.3	**(a)**	Differentiate: OOP and POP.	**03**
	(b)	Explain any two types of Constructor with example.	**04**
	(c)	Explain Unary Operator Overloading with example.	**07**
		OR	
Q.3	**(a)**	Explain destructor with example.	**03**
	(b)	Explain macro with example.	**04**
	(c)	Explain Binary Operator Overloading with example.	**07**
Q.4	**(a)**	Explain 'this' pointer with example.	**03**
	(b)	Explain virtual base class in detail.	**04**
	(c)	What is Inheritance? Explain any two types of inheritance with example.	**07**
		OR	
Q.4	**(a)**	Explain pure virtual function with example.	**03**
	(b)	Explain Private, Public and Protected in detail.	**04**
	(c)	Explain type conversion with example.	**07**
Q.5	**(a)**	Give the usage of ios class.	**03**
	(b)	Explain call by reference function with suitable example.	**04**
	(c)	Why templates are used in programming? Explain with proper example.	**07**
		OR	
Q.5	**(a)**	Explain Manipulators in detail.	**03**
	(b)	What is class hierarchy? Explain with example.	**04**
	(c)	Define – exception. Explain C++ exception handling mechanism with example.	**07**

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