Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA – SEMESTER – III • EXAMINATION – SUMMER 2018

Subject Code: 3630004   **Date: 25-May-2018**
Subject Name: Programming with C++
Time: 02.30 pm to 5.00 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)** Fill in the blanks: **07**
  i. In C++, we can throw only _____ error at a time.
  ii. _____functions can be preferred over macros.
  iii. _____ is a template data structure.
  iv. _____ operator is used to signify the namespace?
  v. A _____ function can access only static data members of a class.
  vi. _____ function is used to return total number of characters read during last input operation.
  vii. _____ keyword is used to access variable in namespace.

(b) Answer following questions in brief :   **07**
  i. What is cin and cout?
  ii. What does it mean by inline function?
  iii. What is an object?
  iv. What is static member function?
  v. Define Abstract class.
  vi. What is the difference in using sizeof operator in C and C++?
  vii. What do you mean by reference variable?

Q.2 **(a)** What is object-oriented programming? Explain all the features.   **07**
(b) Differentiate between Pass by Value and Pass by Reference with example.   **07**
OR
(b) Explain prefix ++ and postfix ++ operator. How they can be overloaded? Explain with suitable example.   **07**

Q.3 **(a)** 1. Write a sort note on data types available in C++.   **04**
           2. Explain nesting of namespace with example.   **03**
(b) Explain virtual function with suitable example.   **07**
OR
Q.3 **(a)** 1. Write a short note on friend function.   **04**
           2. Differentiate between function template and class template.   **03**
(b) Explain the exception-handling in C++ with suitable example.   **07**

Q.4 **(a)** What do you mean by STL? Explain all the type of containers in STL.   **07**
(b) Explain the overloading of >> and << operators with suitable example.   **07**
OR

Q.4	**(a)**	What is RTTI? Give suitable example.	**07**
	(b)	Explain hybrid inheritance. Discuss virtual base class with example.	**07**
Q.5	**(a)**	Explain MIL with suitable example.	**07**
	(b)	Explain overloading of the = and [ ] operators using suitable examples.	**07**

OR

Q.5	**(a)**	Explain Type Conversion with suitable example.	**07**
	(b)	What is manipulator? Explain with suitable example.	**07**

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