GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER- • EXAMINATION – WINTER 2015

Subject Code: 2620002Date:02/12Subject Name: Object-Oriented Concepts & ProgrammingTotal MaxTime: 02.30 pm to 05.00 pmTotal Max			
Instructions:			
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What is reference variable? Explain with suitable example: (i) Pass-by- reference and (ii) Returning a reference from a function.	07
	(b)	What is the importance of static data members? Explain with suitable example: (i) static data members and (ii) static member functions. How do static members functions differ from non-static member functions?	07
Q.2	(a)	Discuss friend function with suitable example.	07
C	(b)	Discuss the terms: (i) mutable (ii) encapsulation (iii) new operator OR	07
	(b)	Discuss: (i) usage of const keyword in C++ (ii) container, iterator	07
Q.3	(a)	What is MIL? Explain its importance with suitable examples.	07
-	(b)	Explain inline function with suitable example and its merits and demerits. Also differentiate between macro and inline function. OR	07
Q.3	(a)	What is constructor? Discuss copy constructor along with its significance and suitable example.	07
	(b)	List three differences between manipulators and ios functions? Discuss any two manipulators.	07
Q.4	(a)	Discuss overloading of the >>, << and == operators using suitable examples.	07
	(b)	Discuss the concept of exception handling in C++ with suitable example.	07
OR			
Q.4	(a)	Explain hybrid inheritance. Discuss virtual base class with example.	07
	(b)	What is the need of overloading the = and [] operators overloading? Discuss overloading of the = and [] operators using suitable examples.	07
Q.5	(a)	Explain dynamic polymorphism. Explain virtual function using suitable example.	07
	(b)	Discuss: seekg, this, virtual destructor OR	07
Q.5	(a)	What is the importance of RTTI? Discuss the type_info object and typeid operator.	07
	(b)	Explain namespace? Why is required? Can we use cin without 'using namespace std' in our program? What is unnamed namespace?	07
