Exam.Code:0906
Sub. Code: 6257

2054
B.E. (Information Technology)
Second Semester
ITC-201: Object Oriented Programming Using C++

Time allowed: 3 Hours **Max. Marks: 50**

NOTE: ***Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.***

x-x-x

1.	a.	List two important features of friend functions.	2
	b.	What are explicit and implicit type conversions? Give an example for each.	2
	c.	Distinguish between data hiding and data abstraction.	2
	d.	What are persistent objects?	2
	e.	Mention the various causes of Exceptions.	2
		UNIT I	
2.	a	Describe the various types of operators available in C++.	5
	b	Write a C++ program illustrating the use of special member functions like default constructor, parameterized constructor, copy constructor and destructor.	5
3.	a	Differentiate between virtual functions and pure virtual functions. Write two distinct C++ programs demonstrating the use of each of these functions.	8
	b	How is garbage collection performed in C++?	2
4.	a	Write a program in C++ to create a class **Distance** that has two member variables i.e. feet and inches, and a member function that performs Overloading of (+) operator to perform addition of two Distance objects.	5
	b	Differentiate between compile time polymorphism and run time polymorphism.	4
	c	Name any two operators that cannot be overloaded.	1
		UNIT II	
5.	a	What is inheritance? Taking an example, explain how it enables code reusability.	5
	b	Differentiate between multiple and multilevel inheritance with the help of a programming example.	5
6.	a	How is static binding implemented in C++?	5
	b	Write a C++ program to create a file with employee number, name, department, basic salary and other allowances as record fields. Open this file, read a record and calculate the total salary and write back to the same file.	5
7.	a	Explain any two predefined manipulators. Write a C++ program to illustrate the creation of a user defined manipulator.	5
	b	Distinguish between overloaded functions and function templates. Write a function template for finding the minimum value contained in an array.	5

x-x-x