

**BACHELOR IN COMPUTER
APPLICATIONS****Term-End Examination****June, 2007****CC-16 (S) : INTRODUCTION TO C++**

Time : 2 hours

Maximum Marks : 75

Note : Question number 1 is **compulsory**. Answer any **three** questions from the rest. Use C++ wherever necessary.

1. (a) Write a program in C++ to search for a given integer among the list of integers and display the position where that integer is present in the list, using linear search technique. 10
- (b) With the help of an example for each, explain the use of the following operators in C++ : 10
- (i) Increment operator
 - (ii) Size of operator
 - (iii) Arithmetic if operator
 - (iv) Comma operator
 - (v) Bitwise AND operator

- (c) Write a program to add 2 matrices of size 2×2 , by sending objects by reference method. 10
2. (a) Explain the concept of polymorphism. Illustrate this concept with the help of any C++ program. 8
- (b) With the help of an example for each, explain the implicit and explicit type conversions in C++. 7
3. (a) Write a program in C++, using the inheritance concept to define "employee" as a base class and derive "Manager", "Engineer", "Technical officer", "Clerk" as derived classes. Incorporate meaningful data in each respective class and display the name of the person, designation, department s/he is working with, if the person-name is given as input. 8
- (b) Distinguish between C and C++. 7
4. (a) What are macros ? How are macros defined in C++ ? With the help of an example, illustrate the usage of it in programming. 8
- (b) Distinguish between the private and public member functions with the help of an example for each. 7

5. (a) Write a program in C++, to define a class namely "student" with meaningful data members and functions. Declare an *array of 25 objects* from the respective class and display the data by using a looping construct. 8
- (b) What is the basic purpose of operator overloading ? Explain the concept with the help of an example. 7

