

**BACHELOR IN COMPUTER
APPLICATIONS****Term-End Examination****June, 2007****CC-16 : 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++, using the operator overloading to concatenate two strings. 10
- (b) With the help of an example for each, explain the use of the following operators in C++ : 10
- (i) Scope Resolution operator
 - (ii) Decrement operator
 - (iii) BITWISE OR operator
 - (iv) % operator
 - (v) New

- (c) Write a program in C++ to perform the following :
 $DZ = A + B - C$.
Here A, B, C and D are 2×2 matrices. 10

2. (a) Explain the concept of Single Inheritance and illustrate this with the help of an example. 8

(b) Identify which of the following are **not** the keywords in C++ : 7

- (i) new
- (ii) throw
- (iii) long
- (iv) medium
- (v) intern
- (vi) online
- (vii) friend
- (viii) double
- (ix) section
- (x) protected
- (xi) macro
- (xii) typedef
- (xiii) non-volatile
- (xiv) destruct
- (xv) real

3. (a) Write a program in C++, using the inheritance concept, to define "player" as a base class and derive "cricket_player", "football_player", "volleyball_player" and "chess_player" as derived classes. Incorporate meaningful data members and member functions. If the name of the person is given as input, it should display the game with which the player is associated along with the matches s/he played. 8
- (b) Distinguish between the procedural and object oriented programming language. 7
4. (a) Write the syntax of the following and give an example for each : 8
- (i) Switch statement
- (ii) Do-while
- (b) Write a program in C++, using recursion to find the factorial of a given number. 7
5. Describe the following and give their usage : $5 \times 3 = 15$
- (i) Friend function
- (ii) Constructors and Destructors
- (iii) Templates
- (iv) Nested classes
- (v) Files and Streams

