

Roll No.....

MCA-303**MCA. III Semester**

Examination, December 2017

Object Oriented Methodology & C++*Time : Three Hours**Maximum Marks : 70*

- Note :** i) Attempt any five questions.
 ii) All questions carry equal marks.

- Create a class student containing data members as Roll-no., Stu-address, Stu-class, Stu-dub, Stu-percentage. Include member functions to accomplish the following :
 - Design a constructor to automatically generate Roll-no. for the students.
 - Accept student details from the user.
 - Calculate the student age from his birth year.
- Write a program in C++ to find the sum of Two entered complex numbers from complex class and display the sum using a member function.
- Write a program in C++ which concatenates two strings by operator overloading.
- What are the different forms of inheritance? Give an example of each.

- Illustrate the utility of friend function using an example.
- Write a C++ program to illustrate the virtual function in inheritance.
- Write a C++ program to demonstrate the try throw and catch.
- Answer any four of the following:
 - Explain various types of loop available in C++.
 - Differentiate between private, public and protected data members of the class using examples.
 - What are virtual functions? Explain a condition in which virtual functions would be appropriate.
 - Discuss various stream classes in C++.
 - Discuss aggregation generalization and association.
 - Compare and contrast various UML diagram.
