



**EASTERN UNIVERSITY, SRI LANKA**  
**DEPARTMENT OF MATHEMATICS**  
**FIRST EXAMINATION IN SCIENCE (2013/2014)**  
**SECOND SEMESTER (Apr/May, 2016)**  
**CS153 – PRACTICAL WORK ON CS 104**

ANSWER ALL QUESTIONS

TIME: TWO HOURS

- 1) Write a C++ program to demonstrate the overloading of *binary* operator by subtracting one complex number from another.
- 2) Write a C++ program to overload *unary ++* operator.
- 3) Using C++, define a function *area( )* to compute the area of objects of different classes – *triangle*, *rectangle* and *square*. Invoke these in the main program.
- 4) Define a class *Publication* which has a *title* and a *price*.

Define the methods:

```
void getData() // To read title and price  
void print() // To display title and price
```

Derive two classes from it.

- A class *Book* which has an *accession number*.
  - Functions:
    - `getData()` // To read *accession number*
    - `print()` // To display *accession number*
- A class *Magazine* which has *volume number*.
  - Functions:
    - `getData()` // To read *volume number*
    - `print()` // To display *volume number*

With these two as bases, derive the class *Journal*, which has a *name* of the *Journal*.

- Functions:
  - `getData()` // To read *Journal name*
  - `print()` // To display *Journal name*

Ensure that the derived class function always invokes the base(s) class function.

In `main()` create a object for the class *Journal*. Invoke the `getData()` and `print()` functions for the object.