Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
200 level 1st Semester Examination – Jul./Aug. 2016
CST222-3 Object Oriented Programming

Uva Wellassa University

Part B

Instructions to candidates
Duration: One (01) hour
Number of questions: Two (02)
Answer all questions
Mark allocation: 60

1.

a. Why Java main method is static? (3 mark)

b.

i. What is the purpose of a default constructor? (3 mark)
ii. Explain the return value of a constructor. (4 mark)

c.

i. What is meant by method signature? (2 mark)
ii. Why method overloading is not possible by changing the return type of a method? (3 mark)

d. How can we overload the main() method? (2 mark)

e. Using an example, explain the reason for multiple inheritance is not supported through classes. (5 mark)

f. Bank is a class that provides a method to get the rate of interest. HSBC, BOC and HNB banks could provide 10%, 11% and 9% rate of interest respectively.
Explain the runtime polymorphism using the above scenario. (8 mark)

2.

a. Hiding internal details and showing functionality are the primary concern of abstraction and encapsulation.

   i. What is meant by encapsulation in Java? (2 mark)

   ii. What are the advantages of encapsulation in Java? (4 mark)

   iii. Define abstract class in Java. (2 mark)

   iv. Define interface in Java. (2 mark)

b. Tabulate the difference between abstract class and interface in Java. (8 mark)

c. Briefly explain the following terms

   i. Checked Exception (2 mark)

   ii. Unchecked Exception (2 mark)

   iii. Error (2 mark)

d. Rewrite the following program by handling the exception(s).

```
public class ExceptionHandle{
   public static void main(String arguments[])
   {
       int result=50/0;
       System.out.println("Handle the exceptions");
   }
}
```

(6 mark)