

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME: LEVEL 04
DEPT. OF MATHEMATICS AND COMPUTER SCIENCE
NO BOOK TEST TWO (NBT-2): 2011/2012
CPU 2242: OBJECT ORIENTED PROGRAMMING USING C++ & JAVA
DURATION: ONE AND HALF HOURS (1 ½ HOURS)



Date: 07th November 2011

Time: 4.00pm - 5.30pm

Answer ALL questions.

1)

a) Compare and contrast **Object vs Class** in the context of Object Oriented Programming.

b)

i) What is **data abstraction**?

ii) Encapsulation is an important feature in Object Oriented Programming (OOP). Describe how encapsulation is used in programming.

iii) "In an object, encapsulated data members are global to object methods and local to object". Discuss the statement.

c) Briefly explain **Inheritance** and **Polymorphism** in the context of OOP.

2)

a) State and describe three (03) **Access regions** in C++. Why Access regions are used in programmes?

b) **Constructors** and **Destructors** are featured concepts in Object Oriented Programming.

i) Briefly describe three (03) basic kinds of constructors in C++.

ii) Describe the difference between Constructor and Destructor using proper C++ coding example.

c) What is a **user defined copy constructor**? Give a proper C++ coding example for a **user define copy constructor**.

- 3) Write a complete programme (C++ or Java) using OOP approach to implement the following class.

BankAccount
accountNumber
holderName
currentBalance
getCustomerData()
deposit()
withdraw()

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