

United International University

CSE 1116 - Coding Test 1 - Set A

Write your name and ID on the question paper. Marks are on the right. Return question.

Q1a) Create a class named **BankAccount** that has the following four attributes. [3]

- **bankName** (final String)
- **accountName** (String)
- **balance** (double)
- **accountNumber** (int)

b) Create **two** constructors:

i) The first constructor is a default constructor that only prints “**Welcome to the Bank Account System**”. Set the **balance** to **0.0** and **accountName** to “**NEW**” [2]

ii) The second constructor will take three parameters named **accountNumber**, **accountName**, and **balance** and initialize the instance variables using this reference. The constructor will print out “**Welcome to the Bank Account System**” and the **current information of the account**. [3]

c) Create **1 initialization block** that will set the **bankName** to “**INVALID**” and print “**Initiating Banking Protocol**”. [2]

d) Create **1 static block** that will print “**Entering Bank Universe**”. [2]

e) Create **the** following methods:

- **Deposit(double amount)**: Add the amount to the **balance** and print a message indicating the amount deposited. [3]
- **Withdraw(double amount)**: Subtract the amount from the balance if **sufficient funds** are available; otherwise, print a message indicating **insufficient funds**. [3]
- **DisplayAccountInfo()**: Display detailed information about the bank account. [2]
- **TransferMoney(BankAccount b, double amount)**: Transfer the given amount to the **BankAccount b** given in the parameter, also keep **check for insufficient balance** and print a message if insufficient. You should **utilize the above functions** for this task. [3]

f) Do the following tasks:

- Create another class named **Bank**. This class contains the **main** method of the file. [1]
- Create two instances of **BankAccount** objects for two different constructors. [1]
- Perform the following tasks:
 1. Deposit money into an account [1]
 2. Withdraw money from an account [1]
 3. Transfer money from a BankAccount to another [1]
 4. Display account information after each operation [2]