

# The Open University of Sri Lanka

B.Sc. Degree Programme: Level 05

Closed Book Test: 2007

CSU3277: Software Engineering

Duration: One & Half Hours



Date: 24<sup>th</sup> October 2007

Time: 4.00pm – 5.30pm

Answer **ALL** the following questions

- 1 The following narration describes a process that determines whether a customer is to be given credit. The process chooses one of the three possible actions (*allow credit*, *refuse credit* or *refer to manager*). The chosen action depends on whether customer's payment history. Note that, credit is allowed if the credit level has not been exceeded. If the credit limit has been exceeded, then a customer's credit history and amount of credit are examined. Customers with a bad credit history are refused credit. Customers with a good credit history can be allowed a further credit of upto Rs. 50,000/= at the discretion of a manager.

Represent the above logic using;

- a. Structured English,
  - b. A decision table and
  - c. A decision tree.
- 2 A bank branch does business with many customers. Each customer holds one or more accounts and each of them may hold many bank cards. Each card is owned by the bank branch and each card may have transactions with several accounts.

Draw an *Entity Relationship Diagram* for this problem.

- 3 The bank branch handles the major system function, *New Customer*, as three sub functions namely: *Create Customer*, *Create Card* and *Create account*. Customer personal details and the account details are stored separately.

Draw a DFD for the function *New Customer*.

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