THE COPPERBELT UNIVERSITY

SCHOOL OF GRADUATE STUDIES
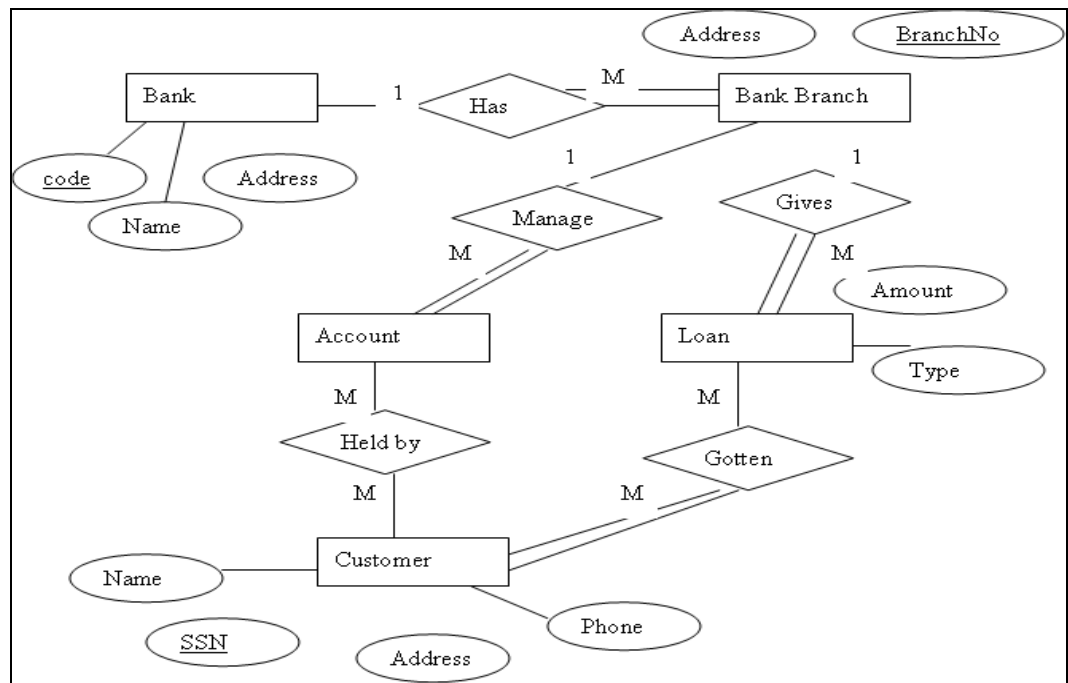
DECEMBER 2013 – SESSIONAL EXAMINATIONS

MANAGEMENT INFORMATION SYSTEM

TIME ALLOWED: THREE HOURS

INSTRUCTIONS :

- ➢ **Maximum Marks Available – 100**
- ➢ **This Paper has SEVEN(7) Questions**
- ➢ **Answer Any FIVE(5) Questions**
- ➢ **All Questions Carry Equal Marks (20 marks)**

Q 1   a)   Define the following information system terminologies. **[8 marks]**

i)   Valuable Information   ii)   Management Information System

iii)   Computer Based Information system   iv)   System

b)   State and describe 6 components of computer based systems. **[6 marks]**

c)   Focus of a Decision Support System is on decision-making effectiveness regarding structured, unstructured or semi-structured business problems. Discuss this statement highlighting these problems. **[6 marks]**

Q 2   a)   State and discuss 4 challenges associated with implementing Enterprise Systems. **[8 marks]**

b)   Enterprise systems can integrate the key business processes of an entire firm into a single software system that allows information to flow seamlessly throughout the organization. Briefly discuss this state by using appropriate examples. **[6 marks]**

c)   More Efficient Operations and Customer-driven Business Process Enterprise systems can help create the foundation for a customer-driven or demand organization. Discuss briefly this benefit of an enterprise system. **[6 marks]**

Q 3   a)   State and discuss 6 disadvantages of database systems. **[6 marks]**

b)   State and discuss the stages of a database system development lifecycle. **[10 marks]**

c)   State 8 functions of a Database Management System. **[4 marks]**

Q 4   a)   State six (6) properties of relations in databases. **[6 marks]**

b)   State and briefly discuss the three (3) integrity constraints associated with databases. **[6 marks]**

c)   Define the following database terminologies. **[8 marks]**

i)   Relational Database Schema ii) Superkey iii)   Relation Schema

iv)   Multivalued Entity

Q 5   Consider the ER diagram shown in Figure below for part of a BANK database.

a)   List concisely the user requirements that led to this ER design. **[8 marks]**

b)   Map the ER Diagram to relational schemas. **[12 marks]**

Q 6   a)   Give specific examples of the Uncommitted dependency and inconsistence analysis problems associated with concurrency transaction processing and discuss how they can be overcome using the simple locking protocol. **[8 marks].**

        b)   Briefly discuss at least the four security measures that can be used to safeguard databases from anticipated threats. **[4 marks]**

        c)   Briefly discuss the four basic properties of a transaction in as far as databases are concerned. **[8 marks].**

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