UGANDA MARTYRS UNIVERSITY, NKOZI CAMPUS/ LUBAGA

FACULTY OF BUSINESS ADMINISTRATION AND MANAGEMENT

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS

BAM II, BPSCM II, (JAN INTAKE)

SEMESTER TWO 2021/2022

COURSE UNIT: INFORMATION SYSTEMS AND DATABASES

CODE: CSC1206

DATE: 13TH JULY, 2022

TIME: 9:30 AM – 12:30 PM

Instructions:

1. Carefully read through ALL the questions before attempting

2. **ANSWER FOUR (4) Questions** (All questions carry equal marks)

3. Ensure that your **Reg Number** is indicated on all pages of the examination answer booklet.

4. Ensure your work is **clear** and **readable**. Untidy work shall be penalized

5. Any type of examination Malpractice will lead to automatic disqualification

Question One (25 Marks)

a) With examples, describe the difference between Information Technology and Information Systems (5 Marks)

b) Explain five (5) major benefits of using computerized Information Systems over File Based Systems (10 Marks)

c) Define a primary key and explain its significance in a table (4 marks)

d) Define the following Super key, Database and Domain (6 marks)

Question Two (25 Marks)

a) Discuss the concept of Customer Relationship Management Information System (5 Marks)

b) Describe the business value that an organization like UMU can gain by purchasing a Customer Relationship Management Information System (10 Marks)

c) Elaborate on five (5) key threats to Information Systems in Organizations (10 Marks)

Question Three

a) Business firms like MTN invest heavily in Databases to achieve strategic business objectives. Discuss any six of these objectives (12 Marks)

b) Databases are designed so as to manage and provide information needed by specific departments in an organization. Identify four departments and their information requirements that can be managed by an Information System (13 Marks)

Question Four (25 Marks)

a) State and explain five (5) issues you would consider before implementing an Information System in any organization (10 Marks)

b) While it is obvious that there are some things common to all organizational structures, there are more differences and unique features than similarities. List and discuss at least five features that are unique to each organization (10 Marks)

c) Explain why you would choose either outsourcing or in-house to build an information system (5 Marks)

Question Five (25 Marks)

Consider a scenario where: a student registers for a Course and sleeps in a Hostel. The course is taught by a Lecturer.

a) In a table format, identify all the entities and what could be some of their attributes in the scenario above (10 Marks)

b) Clearly indicating the cardinalities & relationships, draw an ERD to represent the scenario above (10 Marks)

c) Explain the benefits of managing data using a DBMS (5 Marks)

Question Six (25 Marks)

a) Differentiate between the following with suitable examples

i) Data Definition Language and Data Manipulation Language (6 Marks)

ii) Database and Database Management System   (5 Marks)

b) Explain the following database operations with examples:

   i)   Insert
   ii) Update
   iii) Delete
   iv) Select
   v)   Create
   vi) Alter   @ 2 marks
   vii) Drop

Question Seven

UMU has acquired a database application for its HR department to improve records management. The following table 'Employees' is used by the application to store employee data.

E_ID	Name	Age	Rank	Salary
E01	Denis	34	Senior	1000000
E02	Michael	28	Associate	1500000
E03	Emmanuelle	20	Junior	450000
E04	Georgina	30	Junior	450000
E05	Moses	23	Technical	700000

Required:
   a) Write an SQL statement to create a database 'Employee_Data" for UMU   (2 Marks)
   b) Write an SQL statement to create the 'Employees' table   (2 Marks)
   c) Write an SQL statement one would use to insert the first record into the table (3 Marks)
   d) What is the Key in the above table   (2 Marks)
   e) Write an SQL statement that would show all Employees with all their details (2 Marks)
   f) Write a statement that displays only the names of employees and their salaries (3 Marks)
   g) Write a statement that displays the total wage bill of UMU   (3 Marks)
   h) Write a statement that would change Denis' salary to 1200000   (4 Marks)
   i) Write a statement that displays only the Junior employees   (4 Marks)

END