UGANDA MARTYRS UNIVERSITY
NKOZI

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

Department of Computer Science and Information Systems

END OF SEMESTER ONE FINAL ASESSMENT FOR BSC IT III AND BSC.GEN III

Database Planning Design and Management II
CSC3102

DATE: 11 TH DECEMBER 2014

TIME: 9:30 -12:30
DURATION: 3HRS

Instructions:

1. Carefully read through ALL the questions before attempting
2. **ANSWER all Questions each question is 2 marks**
3. No names should be written anywhere on the examination booklet.
4. Ensure that your **ID number** is indicated on all pages of the examination answer booklet.
5. Ensure your work is **clear** and **readable**. Untidy work shall be penalized
6. Any type of examination Malpractice will lead to automatic disqualification
7. Do not write anything on the questions paper.
8. Record all the SQL statements in the answer booklet apart from the insert statements.

The University Governing Council has agreed to have a new Library Management System developed for Kisubi Brothers University College of Uganda Martyrs University.

As a database designer, you are requested to assist in the development of the system's database by carefully coming up, testing and finally recording the SQL statements required to:

1. Create a system database with a suitable name.

2. Create the following tables with suitable names, column names and data types.
    a) Books { Bookid, Booktitle, BookAuthor, Edition, Numberofcopies}

    b) UniversityStudents{StudentId, Name, Course, Phone, Age}

    c) Bookissue{Bookid, StudentId, dateofissue, dateofreturn}

    d) Bookreturns{Bookid, StudentId, Receivedby }

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3. Display the structure of each of the above tables.
4. Change the name of the UniversityStudents table to Students.
5. Add a new column Date at the end of the Bookreturns table.
6. Remove the column Receivedby from the Bookreturns table.
7. Add a primary key to each of the above tables where applicable.
   Insert the following data into the above tables.

Books { **B01,Software Engineering, Pressman, Fifth , 10;** B02, Network Security, Kaufman, Second , 5; **B03, Business Driven Technology, Laag, Third , 7; B04,Web Design, Willard, First, 3;** B05, Dancing in the Dark, Lee, Second, 4; B06, A Time for us, Josephine Cox, Fifth, 5; **B07 Data structures in Java, Goodrich, Second, 6;**}

Students {**S01, Atwine Adam, IT, 78234, 20;** S02 ,Nkuusi Thomas, FM, 75984, 21; S03, Hilda Mary, IT, 77222, 19; **S04, Niwaha Gift , ECON, 71717,20; S05,Tumusiime Divine, 79333, BAM, 22;** S06, Bukenya Alexander, BAM, 41432, 21; **B07 , Kihembo Ritah, ECON, 33345, 19;**}

Bookissue {**B05, S01, 2014-05-12, 2014-05-17;** B07,S04,2014-06-24,2014-06-26; B03, S03, 2014-05-12, 2014-05-17; **B04,S06, 2014-08-03,2014-08-08; B06, S01, 2014-09-10, 2014-09-15;** }

Bookreturns {B05, S01, 2014-05-17; **B07,S04, 2014-06-28;** B03, S03, 2014-05-17; **B04,S06,2014-08-09;**}

8. Display the tables in the database.
9. Display the contents of each table.
10. Display names and phone numbers of all IT students.
11. Display the titles, authors and number of copies of all the books in the library.
12. Display a list of second edition books owned by the library
13. Display the titles of books where the number of copies is not more than 6.
14. Display the total number of books owned by the library.
15. Display the total number of third and fifth edition books owned by the library
16. Change the course of **Kihembo Ritah** to IT.
17. Display the names and courses of all the students who are above 20.
18. Display the bookids, titles and editions of all the books whose authors begin with the letter L.
19. Display the titles of books for which no authors have been specified.
20. Display student's names, courses and titles of books they have ever borrowed.
21. Display a list of students who have never borrowed books from the library.
22. Display names and courses of students who returned books on time.
23. Display name, course , phone, and age of all students who are bellow 20 and have ever borrowed books with a title beginning with a letter B.
24. Display names of IT and BAM students who did not return books on time.

END