



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY
DEPARTMENT OF INFORMATION & MEDIA TECHNOLOGY

SECOND SEMESTER 2014/2015 EXAMINATION

COURSE CODE: CIT 324
COURSE TITLE: STRUCTURED QUERY LANGUAGE
CREDIT UNITS: 2
TIME ALLOWED: 2 Hours
COURSE LECTURER(S): I. O. ALABI
NUMBER OF QUESTIONS: 4
NUMBER OF PAGES: 3 (INCLUDING THIS PAGE)

INSTRUCTIONS

- Answer all questions
- Do not use red pen
- Please use a clear handwriting
- This exam is closed book, closed notes, closed laptop and closed cell phone
- Please use non-programmable calculators only



1. a) Explain the following terms: (5 marks)
 - i) Primary Key
 - ii) Foreign Key
 - iii) Built-in Function
 - iv) Qualified column name
 - v) Expressions

b) Write the full form of the SELECT statement and explain any two of its clauses.

c) Describe the SQL column functions

d) What is the difference between a nested sub-query and a correlated sub-query?

e) What SQL clause is used to specify a search condition for groups?
2. a) Describe the syntax for the single-row INSERT statement.
- b) How does the DBMS enforce the required data constraint?
- c) What is the difference between the RESTRICT delete rule and CASCADE delete rule?
- d) Describe the three fundamental problems that could occur if transactions are not handled properly in a multi-user environment.
- e) Explain the different types of locks that can be implemented at various levels of the database.
- f) Explain how a DBMS handles deadlock in a database.
- g) Describe how privilege(s) can be passed using SQL.
3. a) Explain the advantages and disadvantages of views.
- b) Consider the database which consists of the three tables below to write the following SQL queries:
 - i) Retrieve the age of the youngest sailor.
 - ii) Retrieve the names of Sailors who reserved a boat on the following days:
10/10/2008, 10/11/2008, 12/11/2008.
 - iii) Retrieve the names of Sailors who have reserved a Blue boat.
 - iv) Reassign all the reservations made by the sailor with Sid 22 to the sailor with Sid 29.
 - vi) Delete the sailor named 'David'.



- vii) Create a view from the Sailors Table called 'SailorsRating' which has the following columns: Sname, Rating.

Sailors Table

Sid	Sname	Rating	Age
22	David	7	45
29	Bala	1	33
31	Lukman	8	55
32	Andy	8	25
58	Richard	10	35
64	Harold	7	35
71	Zubair	10	16
74	Helen	9	35
85	Ali	3	25
95	Bob	3	63

Reservations Table

Sid	Bid	Day
22	101	10/10/2008
22	102	10/10/2008
22	103	8/10/2008
22	104	7/10/2008
31	102	10/11/2008
31	103	6/11/2008
31	104	12/11/2008
64	101	5/9/2008
64	102	8/9/2008
64	103	8/9/2008

Boats Table

Bid	Bname	Colour
101	Interlake	Blue
102	Interlake	Red
103	Clipper	Green
104	Marine	Red

4. a) Enumerate and briefly explain three (3) advantages and two (2) disadvantages of views.
- b) SQL-based DBMSs provide three different ways of adding new rows of data to a database table. Briefly explain each of these methods.
- c) Explain the meaning of the term 'Privileges'.
- d) List and briefly explain the four basic privileges for tables and views in a database.