

SOUTH EASTERN UNIVERSITY OF SRI LANKA

THIRD YEAR (REPEAT) EXAMINATION IN BACHELOR OF BUSINESS
ADMINISTRATION & COMMERCE – 2006/2007

SEMESTER – I, DECEMBER 2007

MIS 3106R - DATABASE DESIGN AND DEVELOPMENT

Answer **all** questions.

Time: 03 hours

(01)

- i. State whether the followings are *true* or *false*. If the answer is *false*, explain why
- a) At the time of table creation a default value can be assigned to a column.
 - b) An underscore (`_`) will match any number of characters from a column of a table.
 - c) In order to select data that is within a range of values, the IN BETWEEN operators is used.
 - d) The Outer join symbol can appear on both sides of a relational operator.
 - e) All the table names need to be specified in the FROM clause of the SELECT statement used for joins.
 - f) Order By clause can be used in subquery.
 - g) The NVL() function is used to substitute a value in place of NULLs.
 - h) A single ampersand substitution variable prompt at most once.
 - i) Oracle issues an implicit COMMIT before and after any Data Definition Language statement.
 - j) Privileges can be granted on columns
- (10 Marks)
- ii. Compare and contrast the three phases of database design? (05 Marks)
- iii. Discuss each of the following terms briefly
- a) Data & Information
 - b) Database Management Systems
- (04 Marks)
- iv. Briefly discuss the advantage and disadvantages of Database Management Systems (06 Marks)

(02)

- i. Briefly discuss the role of the following personnel in the database environment
 - a) Database Administrator
 - b) Physical Database Designer
 - c) End-Users

(09 Marks)

- ii. Write Short Notes on the following:
 - a) Data Definition Language (DDL)
 - b) Degree
 - c) System Development Life Cycle

(09 Marks)

- iii. Define the term "Relational Database" in Oracle and describe the properties of RDBMS?

(03 Marks)

- iv. Describe the technique that is used to relate multiple tables? Give examples to support your answers

(04 Marks)

(03)

- i. What is meant by the term Client-Server architecture? and what are the advantages of this approach?

(04 Marks)

- ii. What do you mean by **normalization**? How does **second** normal form differ from **third** normal form? Give an example to support your answer.

(08 Marks)

- iii. Discuss the differences between the four joins? Give examples to illustrate your answer?

(05 Marks)

- iv. Explain what is wrong with this statement?

```
SQL> Select empno, ename
2      From emp
3      Where sal=
4          (Select MIN (sal)
5             From emp
6             Group By deptno);
```

(03 Marks)

(04)

a) What do you mean by Sub-query? To support the answer give an example?

(08 Marks)

b) Write a query to display the employee name, department number, and salary of any employee whose department number and salary match the department number and salary of any employee who earns a commission

(05 Marks)

c) Explain what is wrong with this statement?

```
SQL> Update emp
      2   SET deptno = 55
      3   Where deptno = 10;
```

(02 Marks)

05.

a) What are Group functions?, list the types of Group functions?.

(05 Marks)

b) What do you mean by Subquery? To support the answer give an example

(05 Marks)

c) Distinguish SQL * PLUS from SQL

(05 Marks)