

SOUTH EASTERN UNIVERSITY OF SRI LANKA
FINAL EXAMINATION IN BACHELOR OF BUSINESS ADMINISTRATION AND
BACHELOR OF COMMERCE 2010/2011
SEMESTER-I, JULY / AUGUST - 2012

MIS 4113 – ADVANCED RELATIONAL DATABASE MANAGEMENT SYSTEM

Answer All Questions

Time: 3 Hours

Question 01

- a) List the features of Oracle DBMS.

(04 Marks)

- b) Discuss the differences between Oracle DBMS and Oracle Application Server.

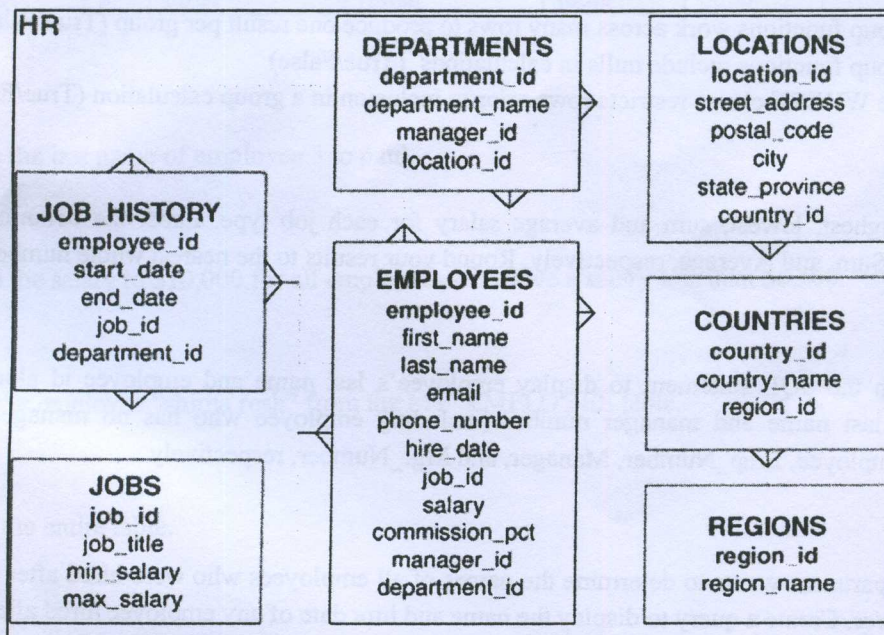
(05 Marks)

- c) List out the Case-manipulation functions and Character-manipulation functions Oracle with each of their usage.

(06 Marks)

(Total = 15 Marks)

Use the following database schema for Question 02 and Question 03



Question 02

Write down the SQL statement for the following,

- a) Display the last name and salary for any employee whose salary is not in the range of \$5,000 to \$12,000.

(03 Marks)

- b) Display the last name, salary, and commission of all employees who earn commissions, sort the data in descending order of Salary and Commissions. (03 Marks)
- c) Display the last name, job, and salary for all employees whose job is Sales Representative or Stock Clerk and whose salary is not equal to \$2,500, \$3,500, or \$7,000. (04 Marks)
- d) Display the employee id, last name, salary, and salary increased by 15.5% (expressed as a whole number) for each employee as New Salary, and add a column that subtracts the old salary from the New Salary (difference between existing salary and revised salary). (04 Marks)
- e) Displays the last name (with the first letter uppercase and all other letters lowercase) and the length of the last name for all employees whose name starts with the letters S, H, or I. Give each column an appropriate alias. Sort the results by the employees' last names. (06 Marks)
- (Total = 20 Marks)

Question 03

- a) Determine the validity of the following three statements. Specify True or False on answer sheet
- Group functions work across many rows to produce one result per group (True/False)
 - Group functions include nulls in calculations (True/False)
 - The WHERE clause restricts rows prior to inclusion in a group calculation (True/False)
- (03 Marks)
- b) Find the highest, lowest, sum and average salary for each job type. Label the columns Maximum, Minimum, Sum, and Average, respectively, Round your results to the nearest whole number. (04 Marks)
- c) Write down the SQL statement to display employee's last name and employee id along with their manager's last name and manager number (including employee who has no manager). Label the columns Employee, Emp_Number, Manager, and Mgr_Number, respectively. (05 Marks)
- d) The HR department wants to determine the names of all employees who were hired after the employee named *Davies*. Create a query to display the name and hire date of any employee hired after *Davies*. (05 Marks)
- e) Write a query that displays the employee id, last name, and salary of all employees who earn more than the average salary. Sort the results in order of ascending salary. (04 Marks)

- f) Write a query that displays the employee id and last name of all employees who work in a department with any employee whose last name contains the letter 'a' or 'i'.

(04 Marks)

(Total = 25 Marks)

Question 04

- a) Write the query to create the NEW_EMPLOYEE table based on the following structure.

Name	Null	Type	Key Type
ID	NOT NULL	NUMBER (4)	Primary key
LAST_NAME		VARCHAR(25)	
FIRST_NAME		VARCHAR(25)	
USER_ID		VARCHAR(8)	
SALARY		NUMBER(9,2)	

(04 Marks)

- b) Write a query to add data to NEW_EMPLOYEE table from the following sample data.

ID	LAST_NAME	FIRST_NAME	USER_ID	SALARY
1	hazeef	ahmed	ahaz	7250
2	shima	resh	rshi	7100
3	hansi	amal	ahan	5000
4	femin	jafan	jfem	7300
5	umar	mirsa	muar	6000

(04 Marks)

- c) Change the last name of employee 3 to paul.

(03 Marks)

- d) Change the salary to \$10,000 for all employees who have a salary less than \$6,500.

(03 Marks)

- e) Delete the employee "shima resh" from the MY_EMPLOYEE table.

(02 Marks)

- f) Empty the entire table.

(02 Marks)

- g) Delete the MY_EMPLOYEE table.

(02 Marks)

(Total = 20 Marks)

Question 05

a) Discuss the advantages of PL/SQL.

(05 Marks)

b) Write a PL/SQL code to update salary of employee id '7788' to 3000 if salary is less than 3000.

(05 Marks)

d) Write short notes with example on following

- i. Implicit Data Type Conversion and Explicit Data Type Conversion.
- ii. ROUND and TRUNC
- iii. SQL and PL/SQL
- iv. % ROW TYPE
- v. LPAD and RPAD

(10 Marks)

(Total = 20 Marks)

END