# EASTERN UNIVERSITY, SRI LANKA 

## DEPARTMENT OF MATHEMATICS

SECOND YEAR EXAMINATION IN SCIENCE - 2009/2010
SECOND SEMESTER (April/June, 2012) CS 253 -PRACTICAL WORK ON CS 203 (PROPER \& REPEAT)

## Answer all questions

Time allowed: 02 hours

Q1.
a) Create a Database "STUDENT INFO" using MySQL.
b) Consider the following relations and Create Tables. Primary Keys are underlined.

STUDENTS (Student No, Course No, Name, Address, Period, Sex, DOB)
RESULTS (Student No, Subiect No, Year Exam, Marks)
SUBJECTS ( Subject No, Subject Name, Dept Name)
CONSISTS (Course No, Subject No)
DEPARTMENT (Dept Name, Head of Dept)
COURSE (Course No, Title, Duration)
c) Insert the records as shown below in tables.

STUDENTS

| STUDENTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Student No | Course No | Name | Address | Period | Sex | DOB |
| S1000 | C1 | K. Ananth | Kandy | 1 | M | 2/12/1975 |
| S1001 | C2 | A. Joseph | Kandy | 2 | F | 3/12/1975 |
| S1002 | C2 | S.Herath | Colombo | 1 | M | 6/24/1975 |
| S1003 | C1 | S.Anita | Jaffna | 1 | M | 2/11/1976 |
| S1004 | C3 | P. Elengo | Batticaloa | 3 | F | $\frac{5 / 13 / 1975}{5 / 2 / 1976}$ |
| S1005 | C3 | R.Ameer | Jaffna | 2 | F | 5/23/1976 |
| S1006 | C1 | M.Dilshan | Ampara | 1 | M | 9/24/1975 |
| S1007 | C1 | P.Joseph | Batticaloa | 2 | F | 5/14/1976 |
| S1008 | C3 | N.Edward | Jaffna | 2 | F | 8/27/1976 |
| S1009 | C1 | S.Ajith | Ampara | 1 | M | 8/18/1973 |
| S10010 | C2 | R.Sasi | Batticaloa | 3 | F | 7/12/1975 |

RESULTS

| Student No | Subject No | Year Exam | Marks |
| :--- | :--- | ---: | ---: |
| S1000 | SU2203 | 1 | 75 |
| S1003 | SU2201 | 1 | 59 |
| S1003 | SU2203 | 1 | 45 |
| S1004 | SU2205 | 2 | 65 |
| S1006 | SU2202 | 1 | 65 |
| S1007 | SU2201 | 2 | 78 |
| S1009 | SU2201 | 1 | 48 |
| S1009 | SU2204 | 1 | 85 |

CONSISTS

| Course No | Subject No |
| :--- | :--- |
| C1 | SU2201 |
| C1 | SU2202 |
| C1 | SU2203 |
| C1 | SU2204 |
| C1 | SU2205 |
| C2 | SU2206 |
| C2 | SU2207 |
| C2 | SU2208 |
| C2 | SU2209 |
| C3 | SU2205 |

SUBJECTS

| Subject No | Subject Name | Dept Name |
| :--- | :--- | :--- |
| SU2201 | Cost Accounting | Commerce |
| SU2202 | Company Law | Commerce |
| SU2203 | Computer Science | Computer Unit |
| SU2204 | Business Statistics | Commerce |
| SU2205 | Macro Economics | Commerce |

DEPARTMENT

| Dept Name | Head |
| :--- | :--- |
| Commerce | Mr. S. Moorman |
| Computer Unit | Dr. S. Collins |
| Economics | Mr. S. Brown |
| Mathematics | Dr. K. Buster |
| Statistics | Dr. Miss. N. Jones |

COURSE

| Course No | Title | Duration |
| :--- | :--- | ---: |
| C1 | Boom | 4 |
| C2 | Arts | 4 |
| C3 | Law | 3 |
| C4 | Bsc | 4 |

d) "Write SQL command for the following queries (state clearly any assumption you would like to make):
i. retrieve the names of all students who are in the $2^{\text {nd }}$ year;
ii. retrieve the Student No for students who are in the $1^{\text {st }}$ year and were born on 24/6/75;
iii. list the Course No and the names of all the students with their Course No in reverse alphabetical order and names within each course in alphabetical order;
iv. list the heads of the department who have " $n$ " as the last letter in their name;
v . list the heads of department who have the initial ' $S$ ';
vi. list the names of students who studied the subject 'SU2205';
vii. list the student numbers, subject numbers, year Exam for which the students have obtained a mark between 50 and 60 ;
viii. list the subject numbers for subjects which are offered by Department of Commerce or which are included in C2;
ix. list the Student No and Subject No for which the student had obtained an average of less than 60 ; and
x. retrieve the names of students who study all subjects.

