

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGY EDUCATION

HIGHER NATIONAL DEPLOMA IN ACCOUNTANCY

SECOND YEAR, SEMESTER I -2015

Database Management System and Data Analysis

HNDA-2105

Tutorial

01.

- i. Define and differentiate the term **Data** and **Information**.
- ii. Define the term Database. Give two (02) examples of databases
- iii. What are the components of database system?
- iv. Define the terms **Data Dictionary (System catalogue)**, **Meta-data**, **Database** and **Views** in database.
- v. A database may be generated and maintained manually or it may be computerized. Simplify your answer?

02.

- i. What is meant by DBMS? Give (04) examples.
- ii. Briefly describe four **advantages** and **disadvantages** of DBMS?
- iii. List the four types of database users.
- iv. Briefly explain the functionality of Database administrators (DBA)

03.

- i. Define the terms **Relation** and **RDBMS**
- ii. Define the terms **Primary Key** and **Foreign Key** in Relational model
- iii. Give an example for **Composite Attributes**. State the Example using graphical notation.
- iv. Identify the entity types and one relationship type for each of the given case and draw Entity Relationship (E-R) diagrams, indicating cardinality
 - a. An employee manages at most one department. A department can have only one manager managing it.
 - b. Employee works in at most one department.
 - c. An employee can work on several projects. A project can have many employees working on it.

04.

- i. What is meant by SQL?
- ii. As a language the SQL can be categorized into four (04) sub languages. What are they?
- iii. Consider the following relations:

EMPLOYEE (emp_no, emp_name, gender, salary)

DEPARTMENT (emp_no, dept_no, dept_name)

- a. Name the Primary key for each of the relation and foreign key for DEPARTMENT relation.
- b. Write the SQL statements for the given queries.
 - i. Retrieve the name of all female employees
 - ii. Retrieve employees name in descending order of salary.
 - iii. Retrieve the emp_no who get more than 50,000 thousand of salary.