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Department of Technical Education and Training

NVQ Level 05 Written Examination – July 2013 (Semester I)

National Diploma in Information & Communication Technology

Database Systems I	**5S1NVQ 001**	Three hours

Instructions: Answer four (04) questions.

1. Write short notes

   i. Difference between DDL & DML (07 Marks)

   ii. Primary key, foreign key and Composite key (09 Marks)

   iii. Entity, attributes and relationship (09 Marks)

2. i. What is DBMS? (07 Marks)

   ii. What is Data Independence? (06 Marks)

   iii. Explain briefly physical data independence and logical data independence. (12 Marks)

3. Consider the following fields of an inter library loans information

   Article ID, Article Title, Author ID, Author Name, Magazine ID, Magazine Name, Borrower ID, Borrower Name, Borrower Dept, Loan Date, Return Date

   Normalize the above table considering following assumptions.

   - A borrower may have more than one loan of an article at a time
   - At different times a borrower may borrow the same article more than once
   - An article is always written by one or more authors, an author may write many article.
   - Only authors who have written at least one article will be stored
   - A magazine consist of many articles, but a particular article relates to one and only one magazine.

   (25 Marks)

4. i. Briefly explain SQL with an example. (05 Marks)

ii. Consider the following relational schema:

Student (Studentno, StudentName, SubjectCode, Marks)

Subject (SubjectCode, SubjectName)

Write SQL statements to

- Display all StudentName & SubjectName where marks>=70 (10 Marks)
- Increase the marks of all student by 10 (10 Marks)

5. Consider the above relational schema in question 4:

i. Create Student and Subject tables (12 Marks)

ii. Write a query that will produce all of the student whose names begin with a letter A and C (13 Marks)

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