



Department of Education, Sabaragamuwa/weekly school

week- March - 1

Subject-Information and Communication  
Technology

Grade-13

Prepared by – Zonal Education  
Office, Rathnapura.

1. A library uses the following table to store details such as students, books and books borrowing. Assume that the primary key is (Student ID+Book ID)

### Borrowing

<u>Student ID</u>	<u>Student name</u>	<u>Book ID</u>	<u>Book Title</u>	<u>Date</u>
S1	Smith	B1	Python	12-04-2017
S2	Smith	B2	Databases	17-01-2017
S3	Ford	B1	Python	25-02-2017

- 1.) Which normal form is violated by this table. Justify your answer.
- 2.) Give any one example for insert anomaly in which the table is in un-normalized form.
- 3.) Convert the table into third normal form (3NF).
- 4.) The librarian requires a report that should consist of the title of books borrowed by students and date borrowed after the table is converted into third normal form. Write down a SQL statement to obtain these details.