

**FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY (FISAT)®**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**CSL 333 DATABASE MANAGEMENT SYSTEMS LAB**  
**Internal Exam (S5 CS A- Admission Year 2020)**

**Academic Year 2022-23**

**Batch 1 (Date: 06/01/23)**

1. A bus reservation database system contains the following tables.

Bus(Bus\_no (PK), arrival, departure, seats)

Reservation(Bus\_no(FK), PassengersName, age, date of travel)

Create the tables and insert values.

- a) Write a procedure to display the details when the bus no is specified.
- b) Write a procedure to display the details of passengers traveling in a bus on a particular date.
- c) Use a trigger to ensure that the reservation procedure will be successful only if seats are available.

2. Implement a library management system.

Student Table

REGNO	NAME	DEPT	CLASS	FINE	BOOKS
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Library\_books Table

BID	TITLE	AUTHOR	EDITION	COPIES
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Status Table

REGNO	BID	STATUS	ISSUE	RETURN
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- a) Procedure to issue a book
- b) Procedure to return a book
- c) Raise a trigger when a student tries to take more than 5 books
- d) Raise a trigger when the book is returned after the due date

**Batch 2 (Date: 03/01/23)**

1. Develop a query to create a table named STUDENT(Regno, name, mark1, mark2, total).
  - a. Insert 5 records with their total as 0.
  - b. Develop a procedure p1 with Regno, mark1, & mark2 as arguments. Calculate the total(mark1+mark2) and update the values in the STUDENT table.
  - c. Create a trigger that shows a message when the marks are below 40%.
2. Implement billing system using the following tables

Tables are as follows:

stock(item\_code(PK),item\_name, qty)  
item\_price (item\_code (FK), price)  
order(customer\_name,item\_name,item\_code(FK), qty)  
account(bill\_no,customer\_name,total\_amt)

Insert appropriate data into tables stock and item\_price

Write PL/SQL code

- a. To order an item (read customer\_name,item\_name, and qty)
- b. To generate the bill for a particular customer auto-generate the bill\_no field.
- c. Insert customer\_name and total\_amt into the account table. Update the stock table and display the invoice. If the billing amount is greater than Rs.500, give a 10% discount. (use trigger)

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