



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF SOFTWARE ENGINEERING

QUALIFICATION: BACHELOR OF GEOINFORMATION TECHNOLOGY; BACHELOR OF COMPUTER SCIENCE; BACHELOR OF INFORMATICS	
QUALIFICATION CODE: 07BGEI; 07BCMS; 07BAIT	LEVEL: 6
COURSE CODE: DPG621S	COURSE NAME: DATABASE PROGRAMMING
SESSION: DECEMBER 2025	PAPER: SESSION 2
DURATION: 3 HOURS	MARKS: 100

SUPPLEMENTARY/2ND OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS TO STUDENTS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Read all the questions carefully before answering.3. Number the answers clearly

THIS QUESTION PAPER CONSISTS OF 4 PAGES (Including this front page)

Section 1

True/False Questions

(10 Marks, 1 mark each)

1. A stored procedure in SQL Server can contain both DDL and DML statements.
2. A trigger can be executed directly using the EXEC command.
3. The TRY...CATCH block in SQL Server allows handling of runtime errors gracefully within a procedure.
4. The BEGIN TRANSACTION statement must always be followed by either a COMMIT or ROLLBACK.
5. Variables declared within a stored procedure remain accessible even after the procedure ends.
6. An AFTER trigger is executed after the SQL statement that caused it is completed.
7. Using an INSTEAD OF trigger, you can completely replace the default insert, update, or delete behavior.
8. The IF...ELSE construct can be used inside a stored procedure to control which SQL statements are executed.
9. When an error occurs inside a TRY...CATCH block, the transaction automatically commits.
10. A stored procedure cannot call another stored procedure from within it.

Section 2 – Practical (90 Marks)

Use SQL Server Management Studio (SSMS) on your computer to complete this section.

Instructions:

Copy and paste your final code into the designated space for each question on eLearning. Ensure you also keep a copy of your work in Notepad as a backup in case of any technical issues. Use the scenario and table provided below to answer all the questions.

Scenario:

The Lecturer–Student Consultation Management System allows students to schedule and manage consultations with lecturers about academic issues in the courses they are studying. The system should capture lecturer and student details, consultation dates, times, topics, and statuses.

```
CREATE TABLE dbo.CONULTATION (  
    Consultation_ID INT PRIMARY KEY,  
    LecturerName NVARCHAR(100),
```

```
StudentName NVARCHAR(100),
ConsultationDate DATETIME,
Topic NVARCHAR(255),
Status NVARCHAR(50)
);
GO
```

Question 1 (3 Marks)
Create a procedure Add_Column_Remarks that adds a Remarks column (NVARCHAR(255)) to the CONSULTATION table.

Question 2 (5 Marks)
Create a procedure Insert_First_Consultation that uses variables to insert the first record into the table.

Question 3 (10 Marks)
Create a procedure Add_Consultation with parameters for all fields to insert a new record. Invoke the procedure.

Question 4 (2 Marks)
Create a procedure View_All_Consultations to display all records.

Question 5 (4 Marks)
Create a procedure Get_Consultations_By_Status that accepts @Status and displays all consultations with that status. Invoke the procedure.

Question 6 (5 Marks)
Create a procedure Update_Consultation_Status to update a consultation's status using parameters. Invoke the procedure.

Question 7 (10 Marks)
Create a procedure that prints a message depending on the consultation status using IF...ELSE. Invoke the procedure.

Question 8 (5 Marks)
Create a procedure Repeat_Display that uses a WHILE loop to display all consultations three times.

Question 9 (3 Marks)
Create a procedure Delete_Consultation that deletes a record using its ID.

Question 10 (3 Marks)
Create a procedure Consultations_Today to list consultations happening today.

Question 11 (4 Marks)
Create a trigger Notify_On_Insert that prints a message when a new consultation is added.

- Question 12** (1 Marks)
Test the trigger by inserting a new record.
- Question 13** (2 Marks)
Create a procedure Disable_Insert_Trigger to disable Notify_On_Insert.
- Question 14** (5 Marks)
Create a trigger Prevent_Delete_Completed that prevents deletion of consultations marked "Completed."
- Question 15** (6 Marks)
Create a procedure Safe_Delete_Consultation using TRY...CATCH for exception handling.
- Question 16** (9 Marks)
Create a procedure Update_With_Transaction that updates a topic within a transaction. Rollback if ID not found. Invoke the procedure.
- Question 17** (4 Marks)
Create a procedure Count_Consultations to print the total number of consultations.
- Question 18** (3 Marks)
Create a procedure Sort_Consultations_By_Date to list consultations by date ascending.
- Question 19** (3 Marks)
Create a procedure Upcoming_Consultations to display future consultations.
- Question 20** (3 Marks)
Create a procedure Completed_Consultations to list consultations with status "Completed."

<<End of Examination Question Paper>>