



**PAMIBIA UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**FACULTY OF COMPUTING AND INFORMATICS**

DEPARTMENT OF COMPUTER SCIENCE

<b>QUALIFICATION:</b> BACHELOR OF COMPUTER SCIENCE	
<b>QUALIFICATION CODE:</b> 07BACS	<b>LEVEL:</b> 6
<b>COURSE:</b> DATABASE PROGRAMMING AND TECHNIQUES	<b>COURSE CODE:</b> DPT621S
<b>DATE:</b> NOVEMBER 2019	<b>SESSION:</b> 1 (Theory)
<b>DURATION:</b> 1 HOUR	<b>MARKS:</b> 30

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
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**THIS QUESTION PAPER CONSISTS OF 3 PAGES**  
(Including this front page)

**INSTRUCTIONS**

1. Answer all questions.
2. When writing take the following into account: The style should inform more than impress. It should be formal, in third person, paragraphs set out according to ideas or issues and the paragraphs flowing in a logical order. Information provided should be brief and accurate.
3. Please, ensure that your writing is legible, neat and presentable.

**Section A – Theory (30 Marks)**

Question 1

Choose True or False

[10 Marks]

No	Questions	True (T)	False (F)
1	Database Programmers design techniques to recover data		
2	Critical thinking is more important than analytical thinking as a key skill of a Database Programmer		
3	A procedure runs automatically when an event takes place		
4	Triggers cannot be called manually		
5	We can pass parameters as input to a trigger		
6	Both a trigger and stored procedure are invoked in the same manner		
7	ROLLBACK TRANSACTION rolls back an explicit transaction to the beginning of the transaction		
8	To recover related databases to a good state, transaction log marks are necessary		
9	Once a stored procedure is dropped its content is still saved		
10	The DROP PROCEDURE statement drops a trigger		

Question 2

[5 Marks]

Compare and explain the difference between the following two statements.

**Statement 1:**

```
CREATE TABLE LOGIN(
    USERNAME VARCHAR(20),
    PASSWORD INT)
```

**Statement 2:**

```
CREATE PROCEDURE access
AS
    CREATE TABLE LOGIN(USERNAME VARCHAR(20),PASSWORD INT);
```

Question 3

[2 Marks]

Compare and explain the difference between the following two statements.

**Statement 1:**

```
CREATE PROCEDURE Insert_Username
@username varchar(20)
AS
BEGIN
SELECT @username = username FROM login;
PRINT @username
END
```

```
EXECUTE Insert_data '1'
```

**Statement 2:**

```
CREATE PROCEDURE Insert_Username
@ username varchar(20) OUTPUT
AS
BEGIN
SELECT @username = username FROM login;
PRINT @username
END
```

```
EXECUTE Insert_data '1'
```

Question 4

[2 Marks]

Please explain the code below.

```
CREATE PROCEDURE AMOUNT
AS
ALTER TABLE LOGIN
ADD
amount DECIMAL (10, 2) NOT NULL,
customer_name VARCHAR (50) NOT NULL;
```

Question 5

[2 Marks]

What is the difference between BEGIN TRANSACTION and COMMIT TRANSACTION?

Question 6

[5 Marks]

Considering the data: Username = 'John1', Password = '12345', Amount = '1000', CustomerName = 'John'.

Display the difference between the two statements.

**Statement 1:**

```
SELECT * FROM login for XML Path;
```

**Statement 2:**

```
SELECT * FROM login for XML RAW;
```

Question 7

[4 Marks]

Please explain the code below.

```
CREATE PROCEDURE Password_Test
AS
DECLARE @password INT = 123
IF (@password != 123)
SELECT * from LOGIN where PASSWORD = 123
ELSE
SELECT * from LOGIN where PASSWORD != 4
```

<<<<<<End of Exam >>>>>>