ΠΛMIBIΛ UПIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE

QUALIFICATION: BACHELOR OF COMPUTER SCIENCE	
QUALIFICATION CODE: 07BACS	LEVEL: 6
COURSE: DATABASE PROGRAMMING AND TECHNIQUES	COURSE CODE: DPT621S
DATE: JANUARY 2020	SESSION: 1 (Theory)
DURATION: 1 HOUR	MARKS: 30

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
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THIS QUESTION PAPER CONSISTS OF 4 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 audit the data		
2	Analytical thinking is more important than critical thinking as a key skill of a Database Programmer		
3	A trigger is a stored procedure that runs automatically when an event takes place		
4	Procedures can be called manually		
5	Procedures can take input parameters but cannot return values		
6	Both a trigger and stored procedure are called directly by a user		
7	Each transaction is explicitly started with the AS TRANSACTION		
8	Rollback statement will rollback the insert statement as well as created table		
9	Primary data file constructs a SQL Server database		
10	The ALTER PROCEDURE statement creates a trigger		

Question 2   [4 Marks]
Compare and explain the difference between the following two statements.
Statement 1:
CREATE PROCEDURE Pets_Dog
AS
BEGIN
        CREATE TABLE Pets(TypeID INT,Type varchar(10))
END

EXECUTE Pets_Dog
SELECT * from Pets

Statement 2:
CREATE PROCEDURE Pets_Dog
AS
BEGIN
        CREATE TABLE Pets(TypeID INT,Type varchar(10))
        EXECUTE Pets_Dog
        SELECT * from Pets
END

Question 3   [2 Marks]

Consider the procedure below. Will the procedure execute successfully? If your answer is yes, what will the output be? And if it is no, why?

```
CREATE PROCEDURE NewType
AS
DECLARE @NewType varchar(10)
SELECT @NewType = SUBSTRING(CONCAT('Dog','is','my', 'friend'), 5, 2);
PRINT @NewType

EXECUTE NewType
```

Question 4   [4 Marks]

Please explain the difference between the two statements below.

Statement 1:

DISABLE trigger ALL ON ALL SERVER

Statement 2:

DROP Trigger AfterAudit

Question 5   [2 Marks]

Consider the information from the table *PASS* below (please take note that statement 1 is executed already). Can you please show how the result will be when statement 2 is executed?

```
Statement 1:
CREATE TABLE PASS(
        username varchar(20),
        password varchar(20))

insert into pass values ('Test', '123')
insert into pass values ('Admin', '321')

Statement 2:
DECLARE @counter INT = 1;
WHILE @counter <= 2
BEGIN
        SELECT password from PASS WHERE password =12345 FOR XML RAW
            SET @counter = @counter + 1;
        SELECT password from PASS WHERE password =12345 FOR XML PATH
            SET @counter = @counter - 1;
END
```

Question 6   [2 Marks]

What will the output be for the statement below?

```
DECLARE @counter INT = 1;

WHILE @counter <= 5
BEGIN
    SET @counter = @counter + 1;
            PRINT @counter;
            SET @counter = @counter + 1;
END
```

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
```

Question 8   [2 Marks]
What is the difference between BEGIN TRANSACTION and COMMIT TRANSACTION?

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