



UGANDA BUSINESS AND TECHNICAL EXAMINATIONS BOARD

PAPER CODE TDIT 222	PROGRAMME NATIONAL DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY YEAR II SEMESTER II	DATE MONDAY, 1 ST AUGUST 2022
SERIES JULY/AUGUST 2022	PAPER NAME WEB-BASED APPLICATION DEVELOPMENT	TIME ALLOWED 3 HOURS
YOU SHOULD HAVE THE FOLLOWING FOR THIS EXAMINATION Answer Booklet		

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **eight** questions in **two** sections **A** and **B**.
2. Answer **only five** questions including **two** questions from section **A** and **three** questions from section **B**.
3. All questions carry equal marks.
4. All answers to each question should begin on a fresh page.
5. **Do not** write anywhere on this question paper.
6. All rough work should be done in the official answer booklet provided.
7. Read other instructions on the answer booklet.

SECTION A - (40 MARKS)

Answer only **two** questions from this section.

Question one

Mr. Mugaga would like his profile to be known worldwide, he was advised to own a **website** and has contacted you for advice.

- (a) Define the term website in relation to the advice. (02 marks)
- (b) Outline **four** elements of a good website. (04 marks)
- (c) Differentiate between a **dynamic website** and a **static website**. (04 marks)
- (d) Explain **five** advantages of a dynamic website over a static website. (10 marks)

Question Two

- (a)
 - (i) Define the term **variable**. (02 marks)
 - (ii) Explain **two** types of variables in **PHP** programming. (04 marks)
 - (iii) Give **four** naming rules for **PHP** variables. (04 marks)
 - (iv) List **two** examples of the **PHP** super global variables. (02 marks)
- (b) With examples, explain **four PHP** operators used in **PHP** programming. (08 marks)

Question Three

Mr. Sande is a fresh graduate from a university. He has got a job for lecturing web programming using **PHP** and wants to apply comments in **PHP**.

- (a) Using examples, explain **two** ways of how he will apply the comments in a **PHP** code. (08 marks)
- (b) Illustrate how variables are created and initialized in a **PHP** program. (04 marks)
- (c) Explain how **PHP** is embedded in **HTML**. (04 marks)
- (d) Outline **four** logical operators supported by **PHP**. (04 marks)

SECTION B - (60 MARKS)

Answer only **three** questions from this section.

Question Four

- (a) **PHP** is a server scripting language and a powerful tool for making dynamic and interactive web pages. As a **PHP** developer, with examples, explain the following conditional statements.
- (i) The if statement (04 marks)
 - (ii) if...else statement (04 marks)
- (b) Explain **four** major advantages of **PHP** programming. (08 marks)
- (c) Write the **PHP** code for connecting to the database using the information below;
- ```
$servername = "mysql.hostinger.co.uk";

$database = "u266072517_name";

$username = "u266072517_user";

$password = "buystuff126";
```
- (04 marks)

### Question Five

Lubega was tasked to design a **PHP** program connected to the **MySQL** database for a secondary school that will handle large volumes of data. To do this, he decided to use two connection methods; **mysqli** and **PHP database object** (PDO).

- (a) Explain the use of the methods giving sample codes for each. (08 marks)
- (b) Describe **six** benefits of the **MySQL** extension. (12 marks)

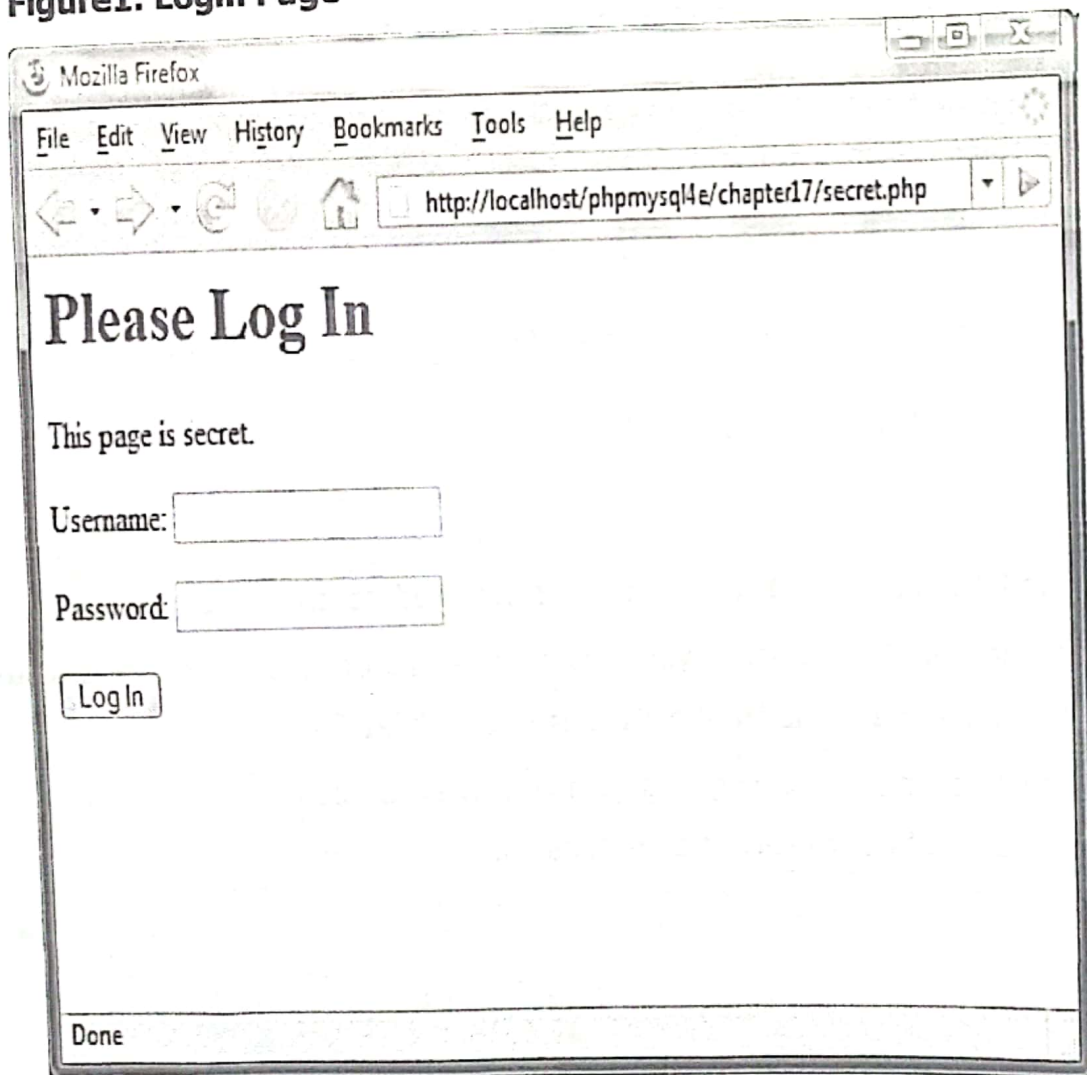
### Question Six

- (a) Think Technologies has a database named "Think" with two tables named "Clients" and "Products". You are required to insert data into the "Clients" table.
- Write a **mysqli** statement that inserts data (ClientsNo, ClientsName, Residence, ContactNumber, Gender) into the "clients" table. (15 marks)
- (b) Write a **mysqli** statement to display everything in the "clients" table. (05 marks)

### Question Seven

**Mega** security guard Uganda owns a website which can be accessed by any user. However, as part of the web security strategies, they want to apply authentication of users by designing a login page where users will be asked to provide usernames and passwords. The company management wants that when a user provides wrong information, he should receive a message **"You are not authorized to use this resource"** otherwise he should receive a message **"You are welcome"**.

**Figure1: Login Page**



Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://localhost/phpmysql4e/chapter17/secret.php

## Please Log In

This page is secret.

Username:

Password:

Done

- (a) Assuming you have been given a contract to implement the above form, write the **PHP** code which can make it possible. (12 marks)
- (b) Explain **four** advantages of a database-driven website. (08 marks)



### Question Eight

(04 marks)

- (a) Study the code below and identify the errors.

```
<Html>
<body>
<?php >
$a = 0;
$b = 0;
for($i=0; $i<5; $i++);
$a += 10;
$b += 5;
}
echo ("At the end of the loop a=$a and b=$b");
<?>
</body>
</html>
```

- (b) Rewrite the code and correct the errors identified. (04 marks)
- (c) Give the output of the program. (04 marks)
- (d) Write a **PHP** program that takes two integer parameters and adds them together and then returns their sum to the calling program. Note that the return keyword is used to return a value from a function. (08 marks)

**END**