



UTHM

Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2022/2023**

- COURSE NAME : WEB DEVELOPMENT
COURSE CODE : BIT 21503
PROGRAMME CODE : BIT
EXAMINATION DATE : JULY / AUGUST 2023
DURATION : 3 HOURS
INSTRUCTIONS : 1. ANSWER ALL QUESTIONS.
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK.

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

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- Q1** (a) **Figure Q1** shows students' information to be sent for an HTML POST request. Convert the information into JSON format.

```
Students

Name: Mark Zuckerberg
Address: Kodiang, Kedah
Program: BIP
CGPA: 3.75
Scholarship: PTPTN

Name: Tim Cook
Address: Parit Raja, Johor
Program: BIT
CGPA: 3.95
Scholarship: Microsoft
```

Figure Q1

(15 marks)

- (b) Rewrite the following Javascript statements into jQuery statements.

(i) `var element = document.getElementById("name");`

(2 marks)

(ii) `var element = document.getElementById("message");`
`element.innerHTML = "Hello World";`

(4 marks)

(iii) `var button = document.getElementById("myButton");`
`button.addEventListener("click", function() {`
 `alert("I love web development");`
`});`

(4 marks)

- Q2** (a) Determine the output of the PHP program shown in **Figure Q2(a)**.

```
<?php

$rows = 3;
$cols = 10;

for ($i = 1; $i <= $rows; $i++) {
    for ($j = 1; $j <= $cols; $j++) {
        echo $i * $j . "\t";
    }
    echo "\n";
}

?>
```

Figure Q2(a)

(15 marks)

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- (b) **Figure Q2(b)** shows an HTML file with its content. Write a PHP file that generates similar content.



Figure Q2(b)

(17 marks)

- Q3** Answer **Q3(a) – Q3(d)** based on the variables information shown in **Table 1** and the database table information shown in **Figure Q3**.

Table 1 : Variables information

Variables	Value
host	localhost
username	admin
password	Admin1234
dbname	WebDev

users
username
password

Figure Q3

- (a) Write the variables declaration with their values in PHP. (4 marks)
- (b) Write PHP statements to create a database connection based on the variables declared in **Q3(a)**. (6 marks)
- (c) Write PHP statements to check if the database connection was successful. (6 marks)
- (d) Write PHP statements to execute a query to retrieve a username and password that match from a POST request. (13 marks)

- Q4**
- (a) Describe any **TWO (2)** security threats that commonly happen nowadays. (4 marks)
 - (b) Define web development frameworks. (4 marks)
 - (c) State **THREE (3)** advantages of using web development frameworks. (3 marks)
 - (d) Define WebAssembly. (1 mark)
 - (e) List **TWO (2)** applications of WebAssembly. (2 marks)

- END OF QUESTIONS -