



THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY  
DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE

**SECOND SEMESTER EXAMINATIONS – 2022**

**SECOND YEAR BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**CS222 –INTERNET PROGRAMMING I**

**TIME ALLOWED: 3 HOURS**

**INFORMATION FOR CANDIDATES:**

1. Write your name and student number clearly on the front of the examination answer booklet/s.
2. You have 10 minutes to read this paper. You must not begin writing during this time.
3. This paper contains nineteen (19) questions. You should attempt all the questions.
4. Make sure you have 5 pages, including cover page.
5. All answers must be written in examination answer booklets provided. No other written materials will be accepted.
6. Start the answer for each question on a new page.
7. Do not use red ink or pencil.
8. Notes, textbooks, mobile phones and other recording devices are not allowed in the examination room.
9. Scientific and business calculators are allowed in the examination room.

**MARKING SCHEME**

Marks are indicated at the beginning of each question. Total mark is 100.

**PART A – TRUE OR FALSE QUESTIONS****[1 MARK EACH = 15 MARKS]**

For the following questions, write true if the statement is true and false if the statement is false respectively.

1. PHP codes/scripts can be inserted into HTML content.
2. PHP is a server-side scripting language, which is used to manage the dynamic content of a website
3. PHP source code and software are not freely available on the web.
4. A PHP application developed in one OS cannot be executed in other OS.
5. HTML is used to design dynamic webpage.
6. JavaScript is used to design all the dynamic website.
7. PHP variable names are case-sensitive.
8. In PHP, a variable starts with the # sign, followed by the name of the variable.
9. Information sent from a form with the GET method is **visible to everyone**.
10. Strip unnecessary characters such as extra space, tab, newline from the user input data through a form with the PHP stripslashes() function.
11. JavaScript code is not usually embedded directly into HTML content.
12. The universal CSS selector is used to select all the elements on the pages.
13. We can attach only one CSS ID selector to an element of a HTML document.
14. Everyone can use JavaScript without purchasing a license.
15. JavaScript can read and change the content of an HTML element

**PART B – SHORT AND LONG ANSWERS QUESTIONS****85 MARKS]****16. WORLD WIDE WEB****[3 + 3 + 1 + 3 = 10 marks]**

- (a) State what the phrase World Wide Web refers to.
- (b) Name the three types of web architectures
- (c) Who invented the World Wide Web?
- (d) What does the synonym W3C stand for and also explain what it is.

**17. WEB PROGRAMMING****[4 + 4 + 2 + 4 + 4 + 4 + 6 = 28 marks]**

- (a) State how a web application differs from desktop and mobile applications.
- (b) State the difference between a website and a web application.
- (c) Explain what the term open-source means.
- (d) State the names of the two types of websites and also the difference between them.
- (e) State the difference between a server and a client.
- (f) State the difference between a web browser and a web page.
- (g) PHP is widely used in web development nowadays. PHP can develop dynamic websites easily. But you must have the basic knowledge of the following technologies for web development as well.

- ✓ HTML
- ✓ CSS
- ✓ JavaScript

Explain the functions of the above three technologies each in a dynamic website.



## 18. HTML, CSS AND JAVASCRIPT

[4 + 4 + 4 + 2 + 2 + 2 + 2 + 4 + 5 = 29 marks]

- In HTML it is very important to learn about table creation and HTML forms. State the purposes of a **form** and a **table** in a web page.
- In HTML forms we should know about the text box, password box, text area, radio button, check box, dropdown list box, submit button, and reset button, etc. Now state the difference between a **text box** and a **text area**.
- The PHP superglobals **\$\_GET** and **\$\_POST** are used to collect form-data. As a web developer, explain when you would prefer to use them and state your reason why.
- Explain how a CSS Element Selector affects HTML elements in a web document.
- State the one difference observed when using a CSS Id Selector and a CSS Class Selector.
- Write a CSS ruleset that will make all the **h1** elements become center aligned, have red font color, and their font family can be any of Arial, Calibri, or Tahoma. (The CSS properties to use are: text-align, color, and font-family).
- When do a JavaScripts in the body section and a JavaScripts in the head section of a HTML document gets executed respectively?
- "JavaScript data types are dynamic". Write what is meant by this statement.
- JavaScript evaluates expressions from left to right. Different sequences can produce different results. Now write the values contain by the following variables.

(a) let x = 6 + 4 + "Mary Jane";  
What is the value of x?

(b) let y = "Hello" + 1.6 + 4;  
What is the value of y?

## 19. PHP AND MySQL

[1+5+3+3+3+3=18 marks]

Below is a table of records from MCS2022 database. Refer to the table to answer the following questions. [2+5+2+2+2=15 marks]

### BSCS2

StudentID	Firstname	LastName	Gender
MCS20	Peter	Parker	M
MCS21	Mary	Dui	M
MCS22	Berry	Sani	M
MCS23	Sandra	Bull	F

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = mysqli_connect($servername, $username, $password);
// Check connection
```

```
if (!$conn) {  
    die("Connection failed: " . mysqli_connect_error());  
}
```

```
// sql to Create database
```

```
$sql = _____  
if ($conn->query($sql) === TRUE) {  
    echo "Database created successfully";  
} else {  
    echo "Error creating database: " . $conn->error;  
}
```

```
// sql to create table BSCS2
```

```
$sql= _____  
  
if (mysqli_query($conn, $sql)) {  
    echo "Table Classlist created successfully";  
} else {  
    echo "Error creating table: " . mysqli_error($conn);  
}
```

```
// sql to add first record into Classlist table
```

```
$sql= _____  
  
if ($conn->query($sql) === TRUE) {  
    echo "New record created successfully";  
} else {  
    echo "Error: " . $sql . "<br>" . $conn->error;  
}
```

```
// sql to delete record with id 3
```

```
$sql= _____  
  
if (mysqli_query($conn, $sql)) {  
    echo "Record deleted successfully";  
} else {  
    echo "Error deleting record: " . mysqli_error($conn);  
}
```

```
// sql to edit record with id 2. Replace lastname Moe to Moore
```

```
$sql _____
```

```
if (mysqli_query($conn, $sql)) {
    echo "Record updated successfully";
} else {
    echo "Error updating record: " . mysqli_error($conn);
}

// sql to select all the record display all attribute values
$sql= _____

mysqli_close($conn);
?>
```

**END OF EXAMINATION**