

PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: BSIT308

COURSE TITLE: ADVANCED WEB DEVELOPMENT

CAMPUS: ROYSAMBU

EXAM DATE: TUESDAY, XXXXX/AUGUST,2025

TIME: 2:00PM- 5:00PM

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Three questions in Section **B**.
- Write only your **student number** on the answer booklet provided.

SECTION A

(Answer ALL questions in this section)

Question 1:

a) JavaScript is “a loosely typed language”. Explain the meaning of this statement.

[2 Marks]

b) Write a function in JavaScript that enables a system to determine the current date and time.

[2 Marks]

c) Write a PHP functions to achieve the following with MySQL database server on the local machine.

i. Connect to the server with username **root** and password **PAC2022** **[1 Mark]**

ii. Select a database called **Uni2020** to be used for queries **[1 Mark]**

iii. Close the database connection **[1 Mark]**

d) The database administrator of a MySQL server environment would like to know details of users of the server. Write the command the administrator would use to show these details.

[3 Marks]

SECTION B

(Answer any THREE (3) questions in this section)

Question 2:

a) Write a HTML code coupled with CSS code to output text in paragraph as colour red, aligned to the centre, initialize the text and background colour of document to be black in colour.

[4 Marks]

b) Consider the following fragment of JavaScript. Give the output that would be produced in the browser window by the pieces of code below.

[6 Marks]

i. // Part (i)

```
var i
for (i = 2; i < 8; i += 2)
{
document.write("The value of i is "+i+ "<br/>")
}
```

ii. // part(ii)

```
<script type="text/javascript">
    const x;
    x = 12;
</script>
```

iii. // part(iii)

```
<script type="text/javascript">
    const x = 22;
    {
        const x = 90;
        console.log(x);

        {
            const x = 77;
            console.log(x);
        }
        {
            const x = 45;
            console.log(x);
        }
    }
    console.log(x);
</script>
```

Question 3:

a) PHP is "a weakly typed language". Explain what this statement means as regards PHP variables.

[3 Marks]

b) The following extract is a PHP array for displaying a list of students

```
<?php  
1.$stds=array("Njogu","Timo","Toma");  
2.$arlength=count($cars);  
3.for($x=0;$x<$arlength;$x++)  
{  
4.echo $stds[$x];  
5. echo "<br>"; }  
6.?>
```

i. Show the output of the code.

[2 Marks]

ii. Explain each line of code from no 1-5.

[5 Marks]

Question 4:

a) A MySQL database dbPractice is to be created in a local MySQL server under the privileges of a user 'dbAdmin' with a password 'dbAdminPass'. Use PHP language to create this database.

[5 Marks]

b) Write a JavaScript program to add two integer values at the click of a button. The web form for inputs is designed in HTML.

[5 Marks]

Question 5:

a) Study the file below saved with the name Myfirststyle.css.

Body {background-color: tan}

h1 {color: maroon; font-size:20pt}

hr {color: navy}

p {font-size:11pt; margin-left: 15px}

a:link {color: green}

a:visited {color: yellow}

a: hover {color: black}

a: active {color: blue}

Using a html statement explain how it can be called in any html page **[4 Marks]**

b) Write an HTML syntax for the web form below

*** required field.**

Name: *** Name is required**

E-mail: *** Email is required**

Gender: ☐ Female ☐ Male *** Gender is required**

[6 Marks]

Question 6:

a) Consider the given fragment and use it to answer the questions that follow:

1 times 2 is 2

2 times 2 is 4

3 times 2 is 6

4 times 2 is 8

5 times 2 is 10

6 times 2 is 12

7 times 2 is 14

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i. Write a PHP *For Loop* to output the fragment.

[5 Marks]

ii. Write a PHP *While Loop* to output the fragment.

[5 Marks]

EOF