

PAN AFRICA CHRISTIAN UNIVERSITY

CERTIFICATE IN INFORMATION AND COMMUNICATION TECHNOLOGY END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: CICT0115

COURSE TITLE: INTRODUCTION TO WEB DEVELOPMENT

CAMPUS: ROYSAMBU

EXAM DATE:

TIME:

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) Imagine you are working on a web project that requires you to access various online resources. You need to download a images and videos from a remote server, browse through several websites for research articles, and send emails to your instructor on progress of your project.

In this scenario, explain how the Internet and the World Wide Web play different roles in helping you complete your tasks. Specifically, identify which tasks involve the Internet and which involve the World Wide Web, and describe the distinction between the two.

[4 Marks]

b) What does the following HTML Code do to the text "Web Developer"? **[2 Marks]**

```
<h1><strong><em>Web Developer</em></strong></h1>
```

c) Identify the property and value in the following CSS declaration rule! **[2 Marks]**

```
p { color: blue;}
```

e) Imagine you are part of a small team working on a web development project. Each team member is responsible for different parts of the project, such as the front-end design, back-end logic, and database integration. You need a way to manage the code changes made by each team member, and ensure that everyone is working with the latest version of the project. What popular open-source tool and repository can you use for this purpose? **[2 Marks]**

SECTION B

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

Question 2:

a) Study the following HTML5 Code extract and answer the questions that follow.

```
<h1>Hobbies</h1>
<ul>
  <li>Reading</li>
  <li>Swimming</li>
  <li>Cycling</li>
  <li>Gaming</li>
</ul>
```

- i. What is the output of the code above?
- ii. What is the default list marker in the above code?
- iii. If you wanted to number your list of hobbies, how would you modify the code?

[5 Marks]

b) Write code for simple HTML5 Login FORM that with login button. Use appropriate HTML5 input elements to mask password field. The username and password fields should have appropriate labels and should be on separate lines. No CSS or JavaScript is needed in your answers.

[5 Marks]

Question 3:

- a) The following are examples of applying CSS to a webpage. Answer the following questions based on the code snippets given below.

A	B	C
<pre><head> <style> h1 { color: blue; } </style> </head></pre>	<pre><head> <link rel="stylesheet" href="styles.css"> </head></pre> File (styles.css) <pre>h1 { color: green; }</pre>	<pre><h1 style=" color: red;">Warning</h1></pre>

- i. Identify the three ways of applying CSS styles to your web page given by A, B, C
 - ii. Arrange them in order of their precedence/specificity i.e. highest to lowest.
 - iii. If all the three CSS styles were to be applied, what would be the font color of h1? **[8 Marks]**
- b) Give one example for each of inline and block elements in HTML. **[2 Marks]**

Question 4:

- a) Given the price of an item 650 Kshs and VAT of 16%, write JavaScript code that takes the price and calculates the total price after the tax and prints out receipt that reads "Total Amount inclusive of VAT is: <your calculated value>". **[5 Marks]**

- b) You have the following HTML and CSS:
html

```
<div id="header" class="main-header">
  Welcome to My Website
```

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</div>

CSS

```
#header {  
    color: blue;  
}  
  
.main-header {  
    color: green;  
}
```

- i. Identify the selectors in the CSS example above.
- ii. What will be the color of the text "Welcome to My Website"? Explain your answer based on CSS specificity. **[5 Marks]**

Question 5:

- a) A startup university in Kenya is planning to launch its website, primarily targeting local students. If the University's name is Bradely International University, what domain name would be most suitable for this website and why? **[5 Marks]**

- b) You have the following HTML structure:

```
<div class="container">  
    <p>This is a paragraph inside a container. </p>  
</div>
```

- i. Add CSS to apply a background color to the content, padding of 5px, and solid 2px border for the .container. **[5 Marks]**

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Question 6:

a) List three ways you can include JavaScript code into your webpage to add interactivity to your website.

[6 Marks]

b) Explain the primary difference between Git and GitHub.

[4 Marks]

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