



**PAC INSTITUTE OF TECHNOLOGY AND SOCIAL STUDIES
MAY – AUGUST 2025 ASSESSMENT**

FORMATIVE ASSESSMENT

Qualification / Course : COMPUTER PROGRAMING LEVEL 6

Unit of Competency : DEVELOP CLIENT-SIDE WEB APPLICATION

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO THE CANDIDATE:

- 1. Read all the instructions carefully before attempting the questions.*
- 2. This paper consists of two sections, A & B.*
- 3. You are allowed 3 Hours to Answer the questions.*
- 4. Marks for each question are indicated in brackets.*
- 5. Write your responses in the Separate Answer booklet provided.*
- 6. Do not write anything on this question paper.*

SECTION A: (40 MARKS)

Answer ALL questions in this section.

1. Explain each of the terminology as used in client-side web development. (6 Marks)
 - a . DOM (Document Object Model)
 - b . Responsive Design
 - c . Event Listener
2. Julia bought a computer so she could get access to the internet. Other than the computer, outline other **FOUR** components she needed to accomplish the task. (4 Marks)
3. The Ministry of health has acquired a Website for their own to help them in their operations. Explain **TWO** uses of the website to ministry. (4 Marks)
4. Explain the purpose of a web browser giving **TWO** examples of existing web browsers. (4 Marks)
5. A URL is an address which allow users and applications to locate resources on the internet. Outline **FOUR** types of URLs. (4 Marks)
6. Write down a HTML tag to format a heading to blue color with a red background.(4 Marks)
7. Website security threats can compromise the confidentiality and integrity of website data. Outline **THREE** such website threats. (3 Marks)
8. When developing a website, there are several factors to be considered. Explain **TWO** such factors. (4 Marks)
9. Website design and website development are website aspects used while creating and maintaining a website. Distinguish between website design and website development. (4 Marks)
10. Jane wanted to design a website and decided she would use a web authoring tool available in the market. Outline **THREE** reasons for her choice. (3 Marks)

SECTION B: (60 MARKS)

*Answer any **THREE** questions in this section.*

11.

a) Write html code that displays the following table when run on the browser (10 marks)

Subject	Date			
<table border="1"><tr><td data-bbox="191 827 375 961">Database</td><td data-bbox="375 827 558 961">Networking</td><td data-bbox="558 827 748 961">Operating System</td></tr></table>	Database	Networking	Operating System	25/2/2015
Database	Networking	Operating System		
Communication Skills	27/02/2025			

b) A web developer is designing a website that showcases different countries and their cultures. On the Kenya page, they want an alert box to display the message **'I am a Kenyan'** whenever the image of the Kenyan flag is fully loaded. Write a JavaScript program that uses an event listener and a function to achieve this behaviour. (10 Marks)

12.

a) Write a JavaScript Program that is embedded on **HTML** that prints the following pattern (10 Marks)

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b) Discuss **FOUR** attributes that can be used with the tag in HTML. (8 Marks)

c) Outline any advantage of using a dynamic web page (2 Marks)

13.

a) Using relevant examples discuss **FIVE** jQuery events (10 Marks)

b) Explain **FIVE** advantages of using libraries such as jQuery in developing web applications (10 Marks)

14.

a) Write HTML code that would display the following items as they appear when run on a browser (10 Marks)

A. Computer Programming

3. Structured Programming

2. Web Programming

▪ PHP

▪ HTML

1. Functional Programming

B. Future of Programming

Artificial Intelligence

This will involve a lot of machine learning

Web 4.0

This will also impact how we code on the web

b) Write a JavaScript program embedded in HTML that would use a function to compute the

area of a triangle whose base length is 300 and height is 100. The program should display the results on a browser (10 Marks)