

06130T4CSC

COMPUTER SCIENCE LEVEL 6

ICT/OS/CS/CR/10/6

Demonstrate Web Design Skills

November/December 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. The paper consists of **TWO** sections: **A** and **B**.
2. Answer **ALL** questions in section A and any **THREE** (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet.
5. **DO NOT** write on this question paper.

**This paper consists of FOUR (4) printed pages
Candidate should check the question paper to ascertain that all
pages are printed as indicated and no questions are missing.**

SECTION A (40 MARKS)

Answer ALL Questions in This Section

- The following tags are required in every HTML page: <html>, <head>, <title>, and <body>. Rewrite the tags along with their closing tags. (2 marks)
- Interpret the JavaScript code below to determine the result of Y. (1 mark)
Let Y = -45;
Y += 5
- Figure 1 shows a snippet of HTML statements. Use it to answer questions that follow.

```

<div style="color:green">
Sentence number 1.
<p style="color:blue">Sentence number 2.</p>
<p>Sentence number 3.</p>
</div>

```

Figure 1

- Write the output when the code loads in a web browser. (3 marks)
 - Predict the colour of each output. (3 marks)
- Rewrite the HTML statement below to include a style that emboldens the output. (2 marks)

<p> Computer Science </p>

- A web designer used the to embed an image. However, when the web page loads, only a little box with some shapes in it is visible as shown in figure 2 below. Outline TWO possible cause of this error. (4 marks)

*Figure 2*

- Write JavaScript code that checks whether a number 45 is greater than 30 and less than 60. Print the result (true or false) in the console. (4 marks)
- You have a cascading stylesheet named styles.css. Write a code showing how you to apply it to a web page named index.html. (4 marks)

8. A trainee decided to create a web page but realized the HTML file saved as homepage.docx could not load on the web browser. Identify possible cause of this problem. (2 marks)
9. Write a code to create a style sheet that specify 30-point blue Arial headings and all other text in double-spaced, 10-point blue Times Roman. (4 marks)
10. A trainee tries to run a script but the browser displays the actual script in its window instead of executing it. Assess THREE possible causes of the problem above. (3 marks)
11. A web designer wants to embed an image in a webpage. The image name is image2.jpg and is stored in a folder named photos. Write a HTML statement to be used given that image width =500 pixels and width = 600 pixels. (4 marks)
12. Implement an HTML that will arrange the following vehicles in ascending order: Nissan, Toyota, Audi, Mazda. (4 marks)

SECTION B (60 MARKS)

Answer Any THREE Questions in This Section

13. a. You intend to design a simple registration form in a webpage. Write HTML code to produce the output shown in figure 3 below. (12 marks)

Figure 3 shows a registration form with the following structure:

- Name:** A container with two input fields: "First name:" and "Last name:".
- Gender:** A container with two radio buttons, both labeled "Male".
- Contact Details:** A container with two input fields: "Email Address" and "Phone Number".
- Bottom:** A "Password:" label followed by an input field with the placeholder "Enter password", a "Submit" button, and a "Reset" button.

Figure 3

- b. Using the WHILE loop, write a JavaScript program embedded in HTML that counts from 0-9 (Zero to Nine) then exits the loop. (8 Marks)
14. a. Create a simple two-row, two-column table with a standard border. Add 30 pixels of space between the table border and the cells. Make the top-left cell green, the top-right cell red, the bottom-left cell yellow, and the bottom-right cell blue. (10 Marks)

b. The FIVE statements below show usage of attributes in modifying the anchor tag. Identify an attribute in each statement highlighting its purpose. (10 Marks)

- i. `Visit Example`
- ii. `Open in new tab`
- iii. `About`
- iv. `External Link`
- v. `Download PDF`

15. a. Implement HTML statement to produce the output shown in figure 4 below. (10 Marks)

Counties

- i. Kenya
 - Nairobi
 - Mombasa
- ii. Uganda
- iii. Tanzania
- iv. South Africa
- v. Malawi
- vi. Lesotho

Figure 4

b. A program has a function that takes two parameters: a number (age) and a string (name). It uses arithmetic operators to calculate years remaining to attain 100 years old, a Boolean expression to check if age ≥ 18 , and if true, concatenate a string "name is an adult, years to 100: X". Implement the program using JavaScript. Declare variables with appropriate scope and handle "if under 18" with a different message. (10 Marks)

16. a. Write JavaScript code that: (10 Marks)

- i. Creates an array named fruit with the following items: Apple, Banana, Mango, Orange
- ii. Displays the count of items in the array.
- iii. Removes the last item using and displays the new array.
- iv. Adds "Pineapple" to the array and displays the final array.

b. You are designing a search box for a website. The requirement is that when a user types text into the input field and presses the Enter key, the system should immediately acknowledge the action. Write a jQuery program that listens for a keypress in an input box with ID #search. When the Enter key is pressed, an alert should display: "You pressed Enter!". (10 Marks)