



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

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MAY – AUGUST 2021

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DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

REGULAR PROGRAMME

CMT 108/LIS 112: INTRODUCTION TO WEB DESIGN & DEVELOPMENT

Date: AUGUST 2021

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

Question 1 (30 Marks)

- a) **Create** a web page of your former High school with the following specifications:
- Place your *school name* at the top of the page in large text followed by *address* and *motto* in smaller size. **(2 Marks)**
 - Add names of *courses* offered, each in a different color, style and typeface. **(2 Marks)**
 - Add *scrolling text* with a message of your choice. **(1 Mark)**
 - Add the school *logo* at the bottom. **(1 Mark)**
- b) **Write** the HTML code to *generate* the table below on a web page: **(10 Marks)**

COMPANY NAME			blank	
First name	Title	Surname	blank	Passport picture
Office Number		Middle Name	blank	
	Job Title		Branch Name	
Reports	to:	Supervisor name		

- c) Write an HTML script to create an HTML form that can be used to get and display the full name, address and gender of CUEA students
The gender should be picked from a combo box (drop-down list) and after typing the full name and address; the users' input should be consolidated and displayed on a text area. **(6 Marks)**

- d) Consider the below HTML code snippet:

```
<!DOCTYPE html>
<html><head><title>Exam</title></head>
<body>

<h1>This is the biggest Heading</h1>
<p id="examid">This is a paragraph.</p>
<p>This is the second paragraph.</p>
<p class="examclass">Web design is fun and easy to learn.</p>

</body>
</html>
```

Required: Write the CSS rules that will perform the following tasks:

- i. Change the color of all <p> elements to yellow. **(2 Marks)**
- ii. Change the color of the element with id="examid", to blue. **(2 Marks)**
- iii. Change the color of all elements with the class "examclass" to "green". **(2 Marks)**
- iv. Change the color of all <p> and <h1> elements, to "red". Group the p and h1 selectors **(2 Marks)**

Question 2 (20 Marks)

- a) Using appropriate examples, *differentiate* between the following web-related terms:

- i. tag and attribute (2 Marks)
 - ii. absolute link and relative link (2 Marks)
 - iii. DOCTYPE and Charset (2 Marks)
 - iv. Style and markup (2 Marks)
- b) Write the HTML code that will allow one to send an email when clicked. (2 Marks)
- c) Write the HTML/CSS codes to generate following output: (4 Marks)

- **Maharashtra**
 - **Pune**
 - I. Dighi**
 - II. Moshi**
 - III. Shivajinagar**
 - **Mumbai**
 - I. Santakruiz**
 - II. Vikroli**
 - III. Mumbra**

- d) **Write** the HTML/CSS codes to *generate* the below output on a webpage: (6 Marks)



Note: The four different sections above should have background colours corresponding to their names.

Question 3 (20 Marks)

- a) List and explain any THREE new tags included in the HTML5. **(4 Marks)**
- b) By means of HTML codes, explain how you can create links to sections within the same page. **(4 Marks)**
- c) Write the CSS rule that would make all unordered lists have square bullets and a purple background. **(2 Marks)**
- d) List and explain any THREE governing bodies of the internet. **(6 Marks)**
- e) What is a comment? Show how to insert a comment in HTML. **(2 Marks)**
- f) Explain the relationship between HTML tags and attributes. **(2 Marks)**

Question 4 (20 Marks)

- a) What do you understand by the term **protocol**? *Explain* any THREE protocols used on the internet. **(4 Marks)**
- b) Using examples *show* any THREE **elements** that can be placed in the *head* section of an HTML document. **(6 Marks)**
- c) Write the HTML, CSS and JavaScript codes to create an interface that will ask a user to key in two numbers. The program should then calculate and display the multiplication of the numbers. **(10 Marks)**

Question 5 (20 Marks)

- a) Differentiate between client-side and server-side scripting giving examples of such scripting languages? **(4 Marks)**
- b) Create an html form named Examform that consists of the following items
 - i. Text Field **(1 Mark)**
 - ii. Radio button **(1 Mark)**

- iii. Drop-down menu (1 Mark)
- iv. Check box (1 Mark)
- v. Password field (1 Mark)
- vi. Fieldset (1 Mark)

c) Study the HTML code below and answer the questions below:

```
<body>
<br />
File: <input type="text" readonly id="name" value="pic1.jpg" />
<br />
Editable? <input type="checkbox" id="edit" /><br />
<select id="file">
<option value="pic1.jpg">Photo 1</option>
<option value="pic2.jpg">Photo 2</option>
<option value="pic3.jpg">Photo 3</option>
</select>
</body>
```

Required: Write a line(s) of Javascript code that would *accomplish* the following tasks, or say “*Not possible*” if it cannot be done.

- i. Change the displayed image so that it shows the contents of the file pic2.jpg. (2 Marks)
- ii. Change the text displayed within the text input box to pic2.jpg (2 Marks)
- iii. Copy the current value of the popup menu element into the text input box. (2 Marks)
- iv. Change the background color of the page to yellow. (2 Marks)
- v. Put a 1 pixel solid gray border all the way around the image. (2 Marks)

END

DET: MAY 2021