

FACULTY	FACULTY OF AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
DEPARTMENT	DEPARTMENT OF ENVIRONMENTAL SCIENCE		
SUBJECT	WEB DEVELOPMENT		
SUBJECT CODE	GCS3612		
DURATION	3 HOURS	MARKS	100

## **NOVEMBER 2022**

## SPECIAL/SUPPLEMENTARY EXAMINATION 2022 MEMORANDUM

Examiners: Mr. Sebastian Mukumbira

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## **INSTRUCTIONS**

- 1. Answer ALL the questions.
- 2. Write clearly and neatly.
- 3. Number the answers clearly.

This paper contains eight pages including this cover page

## Section A: Multiple choice Choose one correct answer [20 Marks]

- 1. TCP/IP stands for?
  - a) Transmission Control Protocol/Internet Protocol
  - b) Telephone Call protocol/International Protocol
  - c) Transport control Protocol/Internet Protocol
  - d) None of the above
- 2. HTTP is
  - a) the predecessor to HTML
  - b) the transfer protocol of the web
  - c) the markup language understood by the browser
  - d) the URL of a web page
- 3. To make your web site available to anyone with an Internet connection, you must
  - a) Create your web pages using Notepad++
  - b) Register yourself with the W3C
  - c) Place your HTML and resource files on a web server
  - d) All the above are true
- 4. What is an empty element in HTML?
  - a) An element with no tag
  - b) An element with no type
  - c) An element with no content
  - d) An element with no comment
- 5. Which of the following tags is **NOT** a container tag?
  - a) <span>
  - b) <div>
  - c) <img>
  - d)

6.	Та	gs that are not directly displayed on the page are written in section.
	a)	<head></head>
	b)	<title>&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;c)&lt;/td&gt;&lt;td&gt;&lt;br/&gt;body&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;d)&lt;/td&gt;&lt;td&gt;&lt;html&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;7.&lt;/td&gt;&lt;td&gt;W&lt;/td&gt;&lt;td&gt;hat is the correct HTML code for inserting an image?&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;a)&lt;/td&gt;&lt;td&gt;&lt;image src="image.gif" alt="Mylmage" /&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;b)&lt;/td&gt;&lt;td&gt;&lt;img href="image.gif" alt="Mylmage" /&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;c)&lt;/td&gt;&lt;td&gt;&lt;img src="image.gif" alt="Mylmage" /&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;d)&lt;/td&gt;&lt;td&gt;&lt;img alt="Mylmage"&gt;image.gif&lt;/img&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;8.&lt;/td&gt;&lt;td&gt;Th&lt;/td&gt;&lt;td&gt;e href attribute in the link tag specifies the:&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;a)&lt;/td&gt;&lt;td&gt;Destination of a link&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;b)&lt;/td&gt;&lt;td&gt;Link&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;c)&lt;/td&gt;&lt;td&gt;Hypertext&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;d)&lt;/td&gt;&lt;td&gt;Attribute&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;9.&lt;/td&gt;&lt;td&gt;W&lt;/td&gt;&lt;td&gt;nich one of the following defines a CSS class selector, RED:&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;a)&lt;/td&gt;&lt;td&gt;RED {}&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;b)&lt;/td&gt;&lt;td&gt;#RED{}&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;c)&lt;/td&gt;&lt;td&gt;.RED{}&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;d)&lt;/td&gt;&lt;td&gt;all of the above&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;10.&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;e termrefers to the ways in which a web page can be made more able by people with visual disabilities.&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;a)&lt;/td&gt;&lt;td&gt;cascading&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;b)&lt;/td&gt;&lt;td&gt;standards&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;c)&lt;/td&gt;&lt;td&gt;accessibility&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;d)&lt;/td&gt;&lt;td&gt;usability&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;/tbody&gt;&lt;/table&gt;</title>

	11.	Sele	ect the tag used to visually group a number of form elements.
		a)	<group></group>
		b)	<form></form>
		c)	<label></label>
		d)	<fieldset></fieldset>
	12.	Whi	ich method will send form data via the URL?
		a)	get
•		b)	post
		c)	action
		d)	Only a and b
	13.	Whi	ch one of the following defines a CSS id selector, NEW:
		a)	NEW{}
		b)	#NEW{}
		c)	. NEW{}
		d)	all of the above
		e)	none of the above
	14.	The	most important goal in web design is
		a)	impressive graphics
		b)	site usability
		c)	interesting links
		d)	attractive home page
	15.	The	selector is used to target a rule to a specific instance of an element.
		a)	id
		b)	class
		c)	block
		d)	external

		C)	<a></a>
		d)	<span></span>
•	17.	Wh	ere in an HTML document is the correct place to link to an external style sheet?
		a)	In the <footer> section</footer>
		b)	In the <body> section</body>
		c)	In the <head> section</head>
		d)	In the <link/> section
•	18.	Hov	v can you make a numbered list?
		a)	<li><li><li><li></li></li></li></li>
		b)	<u ></u >
		c)	<ol></ol>
		d)	< i>
. 1	19.	Wh	at are XML entities used for?
	ŧ	a) E	Entities define shortcuts to standard elements
	1	b) E	Entities define shortcuts to standard text or special characters
	(	c) E	Entities define shortcuts to standard attributes
	(	d) E	Entities are not used in in XML
2	20.	Whi	ch of the following is the correct CSS syntax?
		a) t	oody: color= black
		b) b	oody {color: black;}
		c) {	body; color: black}
		d) {	body: color= black(body}

16. Which of the following is a block-level element by default?

a)

b) <img>

Se	ection B: [40]		
1.		Define the following terms in relation to web development:	10 Marks]
	a}	HTML validation (2 Marks)	
	b}	<a> element (2 Marks)</a>	
	c}	Sitemap (2 Marks)	
	d}	HTML attribute (2 Marks)	
	e}	Authentication (2 marks)	
2.		Good website design contributes to the usability of a website. The following	•
	que	estions relate to web design principles and guidelines:	15 Marks]
	a}	Name and explain four visual design principles. (8 Marks)	
	b}	What is responsive web design and how would you achieve it? (4 Marks)	
	c}	Mention any three common security threats to company websites? (3 Mark	(s)
3.	The	e following questions are in relation to CSS(Cascading Style Sheets):	15 Marks]
	a}	Mention and describe three types of CSS. (6 Marks)	
	b}	How would you configure an Inline CSS to colour style to a heading? (3 Mar	ks)
	c}	Mention three components that constitute the CSS syntax rules. (3 Marks)	
	d}	Give any three benefits of using CSS. (3 Marks)	

1. Analyse the following HTML code and identify the errors. For each error, indicate

[40 Marks]

Section C:

```
<!DOCTYPE html>
 2 <html>
 3 <head>
 4 <style>
 5 <body> {
        background: gray;
 7 }
 8
 9 h [
10
        color: white;
11
        align: center;
12 }
13
14 p {
15
        font-family: verdana;
16
        font-size: 10px;
17 }
18 </head>
19
20 <h1>css</h1>
21 Cascading Style Sheets.
22 To learn more about css <a href="https://www.css.com>click here </a>
24 </body>
25 </html>
```

2. Analyse the HTML code below. Draw a diagram to show how the resulting outcome will appear on a webpage. [10 Marks]

```
<!DOCTYPE html>
  <html>
  <head>
  <style>
  table {
      border-collapse: collapse;
  }
  td, th {
    text-align: center;
    padding: ISpx;
  }
</style>
</head>
<body>
<hl>Course Information</hl>
```

Courses
Department
Full-time
Part-time
Web Development
Programming
Graphic Design
Health Science
Biology
Emergency

3. Write the HTML code to create the HTML Form displayed below. Use **Embedded CSS** for all the styling. Use background colors, font types and colors of your choice.

(20 Marks]

Personal Details
SalutationNone >
First name:
Last name:
Gender: O Male O Female
Email:
Date of Birth: dd/mm/yyyy
Address:
Submit