(Knowledge for Development)

KIBABII UNIVERSITY (KIBU)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

END OF SEMESTER EXAMINATION

2021/2022 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATION

FOR THE DEGREE OF BACHELORS OF SCIENCE IN

(INFORMATION TECHNOLOGY)

COURSE CODE: BIT 222

COURSE TITLE: WEB TECHNOLOGIES I

DATE: 16/05/2022   TIME: 9.00 A.M. – 11.00 A.M.   2HRS

INSTRUCTIONS TO CANDIDATES:
ANSWER QUESTION ONE AND ANY OTHER TWO.

Paper Consists of 6 Printed Pages. Please Turn Over

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QUESTION ONE (COMPULSARY) [30 MARKS]

1. Which of the following is correct about HTML?
   A. HTML uses User Defined Tags.   B. HTML uses tags defined within the language.
   C. Both A and B.   D. None of the above.
2. Which attribute is used to provide a unique name to an HTML element?
   A. id   B. class   C. type   D. None of the above
3. Which of the following is the correct syntax for using the HTML style attribute?
   A. <tagname style = "property: value;">   B. <tagname style = "property;">
   C. <tagname style >   D. None of the above
4. What is the correct syntax to write an HTML comment?
   A. <!-- Comment -->   B. // Comment   C. # Comment   D. /* Comment */
5. Colors are defined in HTML using?
   A. RGB Values   B. HEX Values   C. RGBA values   D. All of the above
6. Which HTML tag is called the root element of an HTML document?
   A. <html>   B. <body>   C. <title>   D. <head>
7. Which property allows an image link to show a text label?
   A. alt   B. str   C. alternative   D. None of the above
8. What are the properties of block-level elements?
   A. It always starts on a new line.   B. It always takes the full width available.
   C. It has a top and bottom margin.   D. All of the above.
9. How to create a hyperlink in HTML?
   A. javaTpoint.com
   B. <a url = "www.javatpoint.com" javaTpoint.com /a>
   C. javaTpoint.com
   D. <a> www.javatpoint.com <javaTpoint.com /a>
10. How to insert an image in HTML?
    A.   B.
    C.   D.
11. Which of the following tag is used to define options in a drop-down selection list?
    A. <select>   B. <list>   C. <dropdown>   D. <option>
12. Which of the following is the correct way to send mail in HTML?
    A. <a href = "mailto: xy@y">   B. <a href = "xy@y">
    C. <mail xy@y</mail>   D. None of the above
13. Which of the following is the correct way to create a list using the lowercase letters?
    A. <ol alpha = "a" >   B. <ol type = "a">   C. <ol letter = "a">   D. None of the above
14. In HTML5, which of the following tag is used to initialize the document type?
    A. <Doctype HTML>   B. <\Doctype html>   C. <Doctype>   D. <!DOCTYPE html>
15. Which of the following is the correct syntax for referring the external style sheet?
    A. style src = example.css>
    B. <style src = "example.css" >
    C. <stylesheet> example.css </stylesheet>
    D. <link rel="stylesheet" type="text/css" href="example.css">
16. Which of the following is the correct syntax to make the background-color of all paragraph elements to yellow?
    A. p {background-color : yellow;}   B. p {background-color : #yellow;}
    C. all {background-color : yellow;}   D. all p {background-color : #yellow;}
17. How to select the elements with the class name "example" in CSS?
    A. example   B. #example   C. .example   D. Class example
18. Which type of CSS is used in the below code?   <p style = "border:2px solid red;">
    A. Inline CSS   B. Internal CSS   C. External CSS   D. None of the above

19. The CSS property used to specify the transparency of an element is -
    A. hover   B. opacity   C. clearfix   D. overlay
20. What type of CSS is generally recommended for designing large web pages?
    A. Inline   B. Internal   C. External   D. None of the above
21. What will be the width of the div element given below?

```
div {
   width: 310px;
   padding: 20px;
   border: 5px solid blue;
   margin: 0;
}
```

    A. 310px   B. 350px   C. 360px   D. None of the above
22. Which of the following methods can be used to display data in some form using Javascript?
    A. document.write()   B. console.log()   C. window.alert()   D. All of the above
23. What will be the output of the following code snippet?

```
<script type="text/javascript">
a = 5 + "9";
document.write(a);
</script>
```

    A. Compilation Error   B. 14   C. Runtime Error   D. 59
24. What will be the output of the following code snippet?

```
<script type="text/javascript" language="javascript">
 var x=12;
var y=8;
var res=eval("x+y");
document.write(res);
 </script>
```

    A. 20   B. x+y   C. 128   D. None of the above
25. When the switch statement matches the expression with the given labels, how is the comparison done?
    A. Both the datatype and the result of the expression are compared.
    B. Only the datatype of the expression is compared.
    C. Only the value of the expression is compared.
    D. None of the above.
26. What will be the output of the following code snippet?

```
var a = 1;
var b = 0;
while (a <= 3)
{
   a++;
   b += a * 2;
   print(b);
}
```

    A. 4 10 18   B. 1 2 3   C. 1 4 7   D. None of the above
27. Which of the following is the correct output for the following JavaScript code:

```
Int x=8;
if(x>9)
{
  document.write(9);
}
  else
{
  document.write(x);
}
```

A. 9   B. 0   C. 8   D. Undefined

28. Which of the following is correct about JavaScript?
    A. JavaScript is an Object-Based language   B. JavaScript is Assembly-language
    C. JavaScript is an Object-Oriented language   D. JavaScript is a High-level language
29. Arrays in JavaScript are defined by which of the following statements?
    A. It is an ordered list of values   B. It is an ordered list of objects
    C. It is an ordered list of string   D. It is an ordered list of functions
30. which of the following are advantages of JavaScript?
    A. Less server interaction   B. Increased interactivity   C. Richer interfaces   D. All of the above

QUESTION TWO [20 MARKS]

a. Using an example distinguish between div and span HTML tags   **[4 marks]**

b. How do you insert a copyright symbol on a browser page?   **[2 marks]**

c. Write HTML code for a link that will connect to another web page when clicked? **[2 marks]**

d. Explain any three new features which were not present in HTML but are added to HTML5?

                                                                        [6 marks]

e. `Write an HTML code to form the table shown below.   **[6 marks]**

Reg No.	Student Name	Course
1001	John	BIT 222
1002	Mark	BIT 225
1003	Paul	BIT 312

QUESTION THREE [20 MARKS]

a. Explain the any two ways in which Javascript can be added to HTML code.   **[2 marks]**

b. Briefly explain any three advantages of JavaScript   **[6 marks]**

c. Write JavaScript code to:

   i.   Create an array myColors of five colors (red, orange, yellow, green and blue). **[3 marks]**

   ii. Add indigo and violet colors to the end of myColors array.   **[1 marks]**

   iii. Removes the color "red" from the array and display the result.   **[1 marks]**

d. Write JavaScript code to create an object named myCar and give it properties named make, model, and year. **[2 marks]**

e. Write JavaScript code to create variables price, taxRate and totalPrice, assign price and taxRate values 48 and 8% respectively and be able to calculate and display the selling price with the word "Total preceding the price value. **[5 marks]**

QUESTION FOUR [20 MARKS]

a. Give three limitations of CSS **[3 marks]**

b. Using examples differentiate Class selector from ID selector? **[3marks]**

c. Compare RGB values with Hexadecimal color codes ? **[4 marks]**

d. Write a CSS style specification rule that would make all unordered lists (<ul> tags) have square bullets and a purple background. **[2 marks]**

e. Outline two demerits that External Style Sheets have. **[2 marks]**
    Demerits:

f. Write three style rules for the following HTML snippet, as described below. **[3 marks]**

```
<p class="poetry" id="stanza1">
```

'It is thrilling learning CSS and how it is useful in styling web pages'.

I hope to gain competency and necessary skills for web development.

```
</p>
```

g. Explain the term Responsive web design. **[3 marks]**

QUESTION FIVE [20 MARKS]

a. Write HTML code that will output a webpage with the following elements: **[8 marks]**

Head section:

- Page title
- Stylesheet and JavaScript files links

Body section:

header tag with menu bar and h1

- division with a paragraph that has span tag
- an image
- special character

- Footer

b. Create a CSS file to style the above page as follows: [8 marks]

Header

- content center aligned
- Grey (#F5F5F5) background color
- Blue text color.

Division

- white background color
- black text color
- margin 30px all round
- paragraphs with 16px font-size
- Bold span tag text and red color

Footer

- Blue background color,
- White text color
- Alignment center

c. Create a JavaScript file the will prompt users to enter their two names and greet them by their first name.   [4 marks]