(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR

SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER ONE EXAMINATIONS

FOR THE DEGREE OF
BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)

COURSE CODE : **BIT 312/CSC363E**
COURSE TITLE : **WEB TECHNOLOGIES II/**

DATE: 14/11/2022   **TIME: 2.00 P.M – 4.00 P.M**

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

1. An article element contains –
   A. Text or embedded content   B. Image   C. Audio   D. None
2. 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">
3. 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;}
4. If we want define style for an unique element, then which css selector will we use ?
   A. Id   B. text   C. class   D. name
5. To make your website mobile friendly, you can make your website
   A. Responsive   B. Reactive C. Fast Loading D. Light
6. Which of the following is true about JavaScript
   A. It is a server side scripting language   B. It is client side scripting language
   C. It is a Software   D. d) It is a database
7. When users are involved in complex tasks, the demand on _____ can be significant.
   A. short-term memory   B. shortcuts
   C. objects that appear on the screen   D. all of the mentioned
8. Which type of JavaScript language is ___
   A. Object-Oriented   B. Object-Based C. Assembly-language D. High-level
9. Which of the following JavaScript function of the String object returns the character in the string starting at the specified position via the specified number of characters?
   A. slice() B. split()   C. substr()   D. search()
10. In JavaScript the x===y statement implies that:
    A. Both x and y are equal in value, type and reference address as well.
    B. Both are x and y are equal in value only.
    C. Both are equal in the value and data type.
    D. Both are not same at all.
11. Which of the following is not JavaScript Data Types?
    A. Undefined B. Number C. Boolean D. Float
12. What is the correct syntax for referring to an external script called "LFC.js"?
    A. <script src="LFC.js">   B. <script source="LFC.js">
    C. <script ref="LFC.js">   D. <script type="LFC.js">
13. Use Experience designing is :
    A. Deriving satisfaction from the use of technology B. Enhancing the usability of a product C. Having the best user Interface design D. about successful and pleasurable product
14. UX design is not
    A. Interaction design   B. Wireframes and prototypes
    C. Visual design   D. Information architecture
15. Using an example, explain the CSS style components.   [3 marks]

16. *Discuss the limitations of CSS.*   [3 marks]

17. Write the HTML code that can display list shown below: [4 marks]

```
1.  FESS
2.  SCAI
        a.  BSc IT
                i.  Dip IT
                ii. Cert IT
        b.  BSc Comp
3.  SOBE
        a.  BAM
        b.  Fnance and economics
```

18. a. Write a JavaScript code to create a Fruits array with the following items: Oranges, Mangoes, Passion, Bananas, and pears   **[3 marks]**
    b. Using the array created above perform the following operation write JavaScript code to perform the following operation:
       i.   Insert an Apple as the last item in the array.   **[1 marks]**
       ii. Reverse the order of the array items.   **[1 marks]**
       iii. Insert guava as the 3rd item.   **[1 marks]**

QUESTION TWO [20 MARKS]

a. Write a JavaScript code to create an object.   **[2 marks]**

b. In creating a JavaScript variable, you can use **var, let** and **const** keywords. Briefly explain the condition under which it is appropriate to use each of the keywords.
    [6 marks]

c. Create at least two variables, to output the following statement using JavaScript code in browser console. "The student who won the scholarship is a 24 year old Computer student from Kibabii University is John Doe".   **[6 marks]**

d. Write JavaScript code that will create an array, retrieved its length and use it to computer the mean of the array.   **[6 marks]**

QUESTION THREE [20 MARKS]

a. Explain the float property of CSS.   **[2 marks]**
b. Explain four ways specifying colours in CSS   **[4 marks]**
c. Using an example compare and contrast Id and class selectors.   **[4 marks]**
d. Explain three advantages of using CSS.   **[4 marks]**
e. Explain the CSS Box model and its elements.   **[6 marks]**

QUESTION FOUR [20 MARKS]

a. Write a HTML code to insert a copyright symbol on a browser page.   **[2 marks]**
b. With justifications, explain motivation for development of HTML5.   **[4 marks]**
c. Write HTML code that creates a links to a sections within the same page.   **[4 marks]**
d. Using HTML code example, differentiate between DIV and SPAN in HTML?   **[4 marks]**
e. Write HTML code to output the table below.   **[6 marks]**

TABLE 1

Reg No.	Name	Gender	Course
PHY001	John Mark	Male	COMP
PHY002	Mary Leakey	Female	SCIE

QUESTION FIVE [20 MARKS]

a. Compare and contrast UI and UX design [8 marks]
b. Briefly discuss web Information Architecture. [Hint: what, why, how of IA] [6 marks]
c. Discuss the best Practices for designing a website interface. [6 marks]