(Knowledge for Development)

KIBABII UNIVERSITY

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UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR TWO SEMESTER TWO EXAMINATIONS

FOR THE DEGREE OF
BACHELOR OF SCIENCE
(INFORMATION TECHNOLOGY)

COURSE CODE   :   BIT 222/BIT 328

COURSE TITLE   :   WEB TECHNOLOGIES I

DATE: 01/10/2021   TIME: 9.00 A.M- 11.00 A.M

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTIONS ONE and ANY OTHER TWO.

QUESTION ONE (COMPULSORY) [30 MARKS]

1. HTML uses
   A. User defined tags   B.Pre-specified tags
   C. Fixed tags defined by the language   D.Tags only for linking

2. Fundamental HTML Block is known as _____.
   A. HTML Body   B.HTML Tag
   C. HTML Attribute   D.HTML Element

3. How can you make a bulleted list with numbers?
   A.<dl>   B.   C.<list>   D.

4. To refer to an external CSS file within an HTML document, use:
   a) <CSS ...> ... </CSS>   b) <SCRIPT ... >... </SCRIPT>
   c) <LINK ... >... </LINK>   d) <STYLE ... >... </STYLE>

5. Which attribute, when added to a dropdown list, allows the user to select more than one item from the list in HTML?
   A. The option attribute   B. The many attribute   C. The checked attribute   D. The multiple attribute

6. Which statement is NOT correct about the 'GET' method in HTML Forms?
   A. A. It is useful if you want to allow the user to bookmark the result of the form submission.
   B. B. It is the default used when the method attribute is omitted from the form element.
   C. Data from the form is appended to the action URL in the form of name/value pairs upon submission and is visible in the address field of the browser.
   D. It is a good choice to send sensitive data to the server.

7. If we want define style for an unique element, then which css selector will we use ?
   A. Id   B. text   C. class   D.name

8. If we want to use a nice looking green dotted border around an image, which css property will we use?
   A. border-color   B. border-decoration   C. border-style   D. border-line

9. Which attribute can be added to many HTML / XHTML elements to identify them as a member of a specific group ?
   A. Id   B. div   C. class   D. span

10. When we write <img src="img.png">, what "img.png" inside double quote implies?
    A. element B. attribute C. value D. operator

11. Which css property you will use if you want to add some margin between a DIV's border and its inner text ?
    A. spacing   B. margin   C. padding   D.inner-margin

12. Which CSS property is used to control the text size of an element ?
    A. font-style   B. text-size   C. font-size   D. text-style

13. By default Hyperlinks are displayed with an underline. How do you remove the underline from all hyperlinks by using CSS code ?
    A. a {text: no-underline;}   B. a {text-decoration:none;}
    C. a {text-style: no-underline;}   D. a {text-decoration: no-underline;}

14. The word "cascading" in CSS is best described by which statement below?
    A. list of style rules are strictly applied from the bottom to the top of the list, with no exceptions.
    B. The final properties of an element are changed by applying a variety of rules to that particular location within the overall HTML page.
    C. One mistake in a higher rule will immediately wipe out all lower rules.
    D. Once you start to style an element, you are required to continue adding styles until all possible properties are defined.

15. Why use CSS?
    A. it helps create unique web pages   B. it allows for the separation of style and content
    C. it helps make the web page's browser independent   D. it change the structure of the web page

16. The style declaration block consists of what?
    A. inline, embedded, external css   B. selector, property, value
    C. html, css, javascript   D. <p> color:blue

17. What is "style" when you use it in an internal CSS?

A. tag   B. property   C. value   D. none

18. You would like to highlight text on a web page. What tag would you use?
    A. mark   B. section   C. article   D. detail

19. Which of the following is an advantage of using JavaScript?
    A - Less server interaction   B - Immediate feedback to the visitors
    C - Increased interactivity   D - All of the above.

20. Which of the following function of String object returns the characters in a string between two indexes into the string?
    A - slice()   B - split()   C - substr()   D - substring()

21. Which of the following function of String object returns the calling string value converted to lower case?
    A - toLocaleLowerCase()   B - toLowerCase()   C - toString()   D - substring()

22. JavaScript is ideal to _____
    A. make computations in HTML simpler   B. increase the download time for the client
    C. increase the loading time of the website   D. minimize storage requirements on the web server

23. JavaScript is a _____ language.
    A. Object-Oriented   B. Object-Based   C. High-level   D. Assembly-language

24. What is a block statement in JavaScript?
    A. conditional block
    B. block that contains a single statement
    C. both conditional block and a single statement
    D. block that combines multiple statements into a single compound statement

25. The "var" and "function" are _____
    A. Keywords   B. Prototypes   C. Data types   D. Declaration statements

26. The method or operator used to identify the array is _____
    A. isarrayType()   B. ==   C. === S   D. Typeof

Essay Questions

27. Very generically, what are <div> and <span> used for in HTML?   **[2 marks]**

28. Differentiate between "==" and "===" operator as used in JavaScript   **[3 marks]**

QUESTION TWO [20 MARKS]

a. HTML tags provide web browsers with instructions about the web page, such as where to display images, and how the document is structured. Using example distinguish between HTML document structure tags and content (container) tags   **[4 marks]**

b. Write HTML tag to output the Figure 1 below.   **[6 marks]**

Fruits	Vitamin A	Vitamin C
Apples	98 ui	8.4 mg
Oranges	295 ui	69.7 mg
Bananas	76 ui	10.3 mg

Figure 1: Fruits and their Nutritional values

c. Write HTML code that will output the figure below.   **[6 marks]**

Contact Details

Name: [   ]
Telephone: [   ]
Email: [   ]

User info

Username: [   ]
Password: [   ]

[Submit now]

Figure 2: Student Biodata Form

QUESTION THREE [20 MARKS]

a. What is CSS? **[2 marks]**

b. Highlight two limitations of CSS **[2 marks]**

c. Cascading Style Sheets offer web designers two key advantages in managing complex web sites. Briefly discuss these advantages. **[6 marks]**

d. Explain the benefits and demerits of External Style Sheets in web development? **[6 marks]**

a. Differentiate Class selector from ID selector. **[4 marks]**

QUESTION FOUR [20 MARKS]

a. Write JavaScript code to show examples of a global variable and a local variable. **[2 marks]**

b. Distinguish Push and Unshift methods in JavaScript. **[4 marks]**

c. Using an example explain how are object properties are assigned. **[4 marks]**

d. Why do we need variables in a JavaScript program? Explain how they are used throughout a program.

Declare a variable that will store an array of string values. Explain every component of the syntax that you use. **[8 marks]**

BQUESTION FIVE [20 MARKS]

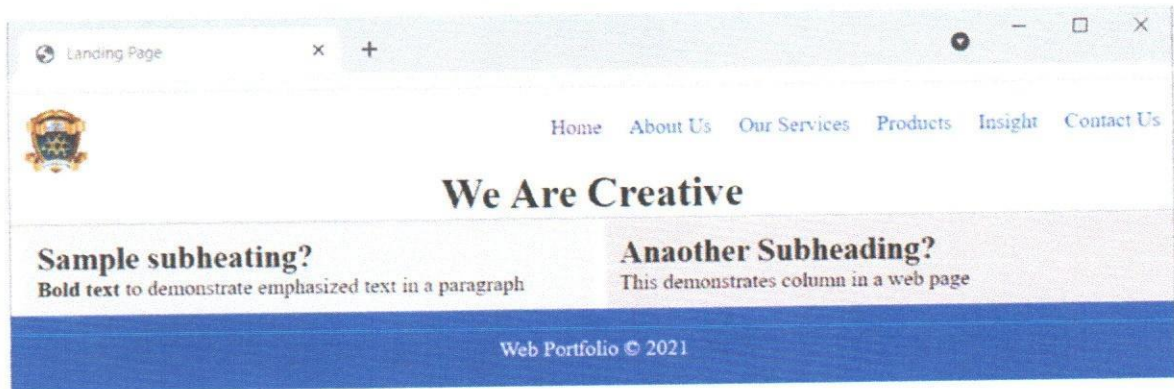Study figure 3and use it to answer the part a, b and c.

Figure 3: Web Portfolio Landing page

Note:

- Color for column 1 is white smoke (#F5F5F5)
- Color for column 2 is neutral gray (##e9dfd)
- Color for footer is blue
- Entity name for © is copy.

a. Write html code that will display Figure 2 shown above. Include links for style sheet file (style.css) and JavaScript file (main.js). You will create an external styling sheet in part b of this question and an external JavaScript file in part c of this question. **[8 marks]**

b. Create a style.css file to format the above html file to output the figure above. **[6 marks]**

c. Create a Main.js JavaScript file to perform the following task. **[6 marks]**

   i. Has a variable the can display a student's first and last name.

   ii. Great the student by his last name assigned in variable created above.