

SECTION A [50 Marks]
Attempt ALL questions.

Question 1

[1x10]

Directions: *For each question, there are four alternatives: A, B, C and D. Choose the correct alternative and circle it. **DO NOT** circle more than **ONE** alternative. If there are more than one choice circled, **NO** score will be awarded.*

- i. Which tag element given below can be written without a closing tag?
 - A Body
 - B Head
 - C Line break
 - D Title

- ii. In the link tag, the destination of the hyperlink is given by
 - A href attribute.
 - B src attribute.
 - C vlink attribute
 - D target attribute.

- iii. The attribute used for managing the space between the cell border and the cell content is
 - A cellspacing.
 - B cellpadding.
 - C colspan.
 - D rowspan.

- iv. Dorji has hosted his website with Druknet. His friends can access it using
 - A domain name.
 - B index.html page.
 - C search engine.
 - D text editor.

- v. Tashi owns a company whose web address is *www.info.net*. Which service can be availed from his company?
- A Setting up internet facilities in our homes
 - B Help regarding government related e-service
 - C Obtain news on social issues such as women abuse
 - D Access questionnaires on price of clothing
- vi. The default browser for Apple computers is
- A Internet Explorer.
 - B Google Chrome.
 - C Mozilla Firefox.
 - D Safari.
- vii. You are logging into your email account on one of the school's IT laboratory computer for the first time. The browser issues a message "*Do you want to save your password in the browser?*". The method used is
- A `window.alert()`.
 - B `window.confirm()`.
 - C `window.prompt()`.
 - D `window.open()`.
- viii. The output of the following JavaScript statement will be
- ```
var i=2;
document.write(++i);
```
- A 1.
  - B 2.
  - C 3.
  - D 4.
- ix. If the web user is to make a selection from two options, what data type would you assign to such variable as a web developer?
- A Boolean
  - B Date
  - C Number
  - D String

- x. Tenzin wrote a JavaScript code which displays a text message in the current browser window using `write()` method. What should he do, if he wants to display the message in a new window?
- A Add the text *“new window”* in front of `document.write()`.
  - B Add the text *“new window”* in front of `document.write()` followed by dot syntax.
  - C Initialize a new window object and add the new windows name in front of `document.write()`.
  - D Initialize a new window object and just add the new windows name in front of `document.write()` followed by dot syntax.

## Question 2

[1x10]

Fill in the blanks with appropriate words or phrases.

- i. The object and its method are joint by \_\_\_\_\_.
- ii. To list down all the students of your class, \_\_\_\_\_ list would be an appropriate option.
- iii. A web developer wants feedbacks from the users, the HTML tag he or she can use for this task is \_\_\_\_\_.
- iv. If you don't want the border of a table to be displayed in the browser window, the value for border attribute of the table should be set as \_\_\_\_\_.
- v. The webserver makes \_\_\_\_\_ available on www.
- vi. The comments added between `<script>` and `</script>` are normally not displayed on the browser. This is achieved by beginning the comment line with \_\_\_\_\_.
- vii. The remainder of division of two numbers can be obtained using \_\_\_\_\_ operator.
- viii. The result of the JavaScript expression `"this is " + " 2 men"` is \_\_\_\_\_.
- ix. A string variable named `myString` is a user defined variable whose value has been assigned as `myString = "I can jump"`. The output of the expression `document.write(myString.charAt(3))` will return the character \_\_\_\_\_.

- x. A variable is to be used in different functions that are used within the script. In this manner, the variable has to be declared as \_\_\_\_\_ variable.

**Question 3**

**[2x15]**

**Direction:** *While answering these questions, indicate briefly, your working and reasoning wherever required.*

- i. “HTML can only create static web pages”. Elaborate the statement by writing **two** points.
- ii. Explain the use of <p> and <br> tags of HTML.
- iii. Write HTML code to produce the following output.
- a) Science
    - o Biology
    - o Physics
    - o Chemistry

iv. How would a webpage differ if you omit the head tag?

v. Write a HTML code to generate the given table below:

|  |  |
|--|--|
|  |  |
|  |  |

vi. Write **one** relevant use of forms and frames.

vii. Which one would you prefer a text editor or a visual editor to create a webpage? Give **two** reasons to support your choice.

viii. Why was LiveScript renamed as JavaScript?

ix. Study the code given below and rewrite the correct code.

```
var I = "this is + " a text";
Alert(i);
```

x. Write a JavaScript code to generate given three numbers below using `while` loop.

2      5      8

xi. Write a JavaScript code to add **any three** elements to an array.

xii.

a) Write a JavaScript code to generate a random number.

b) Write a correct syntax to define a function called `validate`.

xiii. Write a JavaScript statement to access the value of textbox `userNameTB` within the form `StudentDetails`.

xiv. Create a function called `userInput` which will alert the user to input his/her name.

xv. Is DOM part of JavaScript language? Give **two** reasons to support your answer.

**SECTION B [50 Marks]**  
**Attempt ANY FIVE questions.**

**Question 4**

**[10]**

i. Explain the term *tags* and *containers* with **one** example each.

[3]

ii. Write a JavaScript code to evoke a function named `myFunction` when clicked on an image `picture1.jpg`. When the function is executed by the web browser an alert box with the message “*Kuzu Zangpo La!*” should pop up.

[3]

- iii. What are the **two** ways of using JavaScript code within HTML? Give an example to explain each. [2]

- iv. Examine the JavaScript code given below and correct the errors. [2]

```
var a = 30 var b = 7;
function mulptipty{
 Product=a*b;
 Return product;
}
```

**Question 5** [10]

- i. Develop HTML code to display the following output in the browser. [2]

**CHAPTER 1**

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A quick brown fox jumped over a lazy dog.



- ii. Sonam wants to add an interactive webpage with an image to her website. When the user click on the image, it should open `index.html` page of her website. Write HTML code to which can achieve this. The image should be named as `image1.jpg`. [2]

- iii. Examine carefully the two codes given below. How would the output of the two codes vary? [2]

| <u>Code A</u>                                                                          | <u>Code B</u>                                                                                        |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <pre>&lt;body color="red"&gt; &lt;p&gt;     Hello world &lt;/p&gt; &lt;/body&gt;</pre> | <pre>&lt;body color="red"&gt; &lt;p color="green"&gt;     Hello world &lt;/p&gt; &lt;/body&gt;</pre> |

- iv. Where do you place `<title> ... </title>` tag? [1]

- v. Rinzin is a software developer in one of the IT company in Thimphu. He wants to develop a website for a client using JavaScript. Give **two** reasons why you do not recommend the use of JavaScript to Rinzin. [2]

- vi. Give **one** example for Object Oriented Programming language other than JavaScript? [1]

**Question 6** [10]

- i. Write HTML code to insert a form with radio buttons such that the user can select only one of the option. [3]

☒ Female ☐ Male

- ii. What are the **two** ways of assigning value to the width attribute of tables? [2]

- iii. Write JavaScript string methods to extract the word “*Thunder*” from the sentence “*Land of Thunder Dragon*”. [3]

- iv. Differentiate between **built-in** functions and **user defined** functions in JavaScript. [2]

**Question 7**

**[10]**

- i. Dawa wants to promote his tourism company. You as an IT professional recommend him **two** web based tools which can make his company customer friendly, thereby promoting his business.

[2]

- ii. What is the significance of the following types of domains?

[3]

.com          .edu          .org

- iii. Write HTML code to produce the following output:

[2]

We are ~~not~~ worried about increase in CO<sup>2</sup> in Bhutan.

iv. What is the use of `parseInt()` function? [1]

v. Write down the output of the following code. [2]

```
i=3;
j=1;
do
{
 document.write(i*j+" ");
 j++;
}
while (j<=4)
```

**Question 8** [10]

i. “*HTML is case insensitive*”. Explain the statement with a help of an example. [2]

ii. Use appropriate HTML tags to change text style of the text “*hunter*” to **Arial** and change the font color to blue. [2]

iii. Using `if` statement, write a JavaScript code that flags a message “*Fail*” if user enters mark less than 40. [2]

iv. Summer coaching classes for Mathematics has 3 enrolments. The tutor has arranged students in alphabetical order for updating their attendance. You as a programmer, create an array to store names of the students as per attendance register. Using `for` loop, store the student names in a new array in a reverse order. [3]

v. What is the use of `break` statement? [1]

### Question 9

[10]

i. Write two differences between **forms** and **frames**?

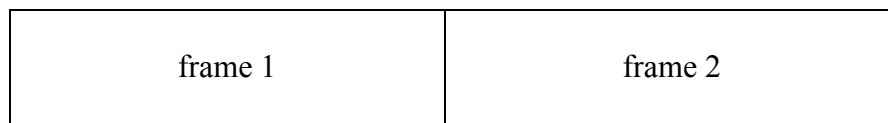
[2]

ii. What is the use of `<th> ... </th>` tag in tables?

[1]

iii. Write HTML code to split the browser window into two equal parts as shown in the diagram below. The page named `links.html` should be loaded in frame 1 and `content.html` in frame 2.

[3]



iv. Create a date object named `myDate` and extract the month from `myDate`.

[2]

v. List **four** child objects of document object.

[2]

**Question 10****[10]**

- i. What will be the output of the JavaScript code below? [2]

```
Data = "30 years old";
changedData = parseInt(data);
document.write(changedData);
document.write(--changedData);
```

- ii. What is the difference between `Math.ceil()` and `Math.round()` functions. Give an appropriate example for each. [3]

- iii. Create a function `show()` which creates new window with width = 300px and height = 400px, that displays the text *"This text has to be displayed."* when the new window opens. [5]

