

NEW CURRICULUM
COMPUTER STUDIES
Paper 1
(THEORY)
(Reading Time: 15 minutes)
(Writing Time: three hours)
(Maximum Marks: 100)

This paper consists of **TWO** sections: **Section A** and **Section B**.

Section A is **COMPULSORY**. Attempt **ANY FIVE** questions out of **SEVEN** questions from Section B.

All working, including rough work should be done on the same sheet as the rest of the answer.

The intended marks for questions or parts of questions are given in brackets [].

SECTION A [50 MARKS]
(Attempt ALL questions.)

Question 1

[10 x 1 = 10]

Directions: each question in this section is followed by four possible choices of answers. Choose the correct answer and write it down in the answer script provided.

a) Which one of the following cannot be used as HTML editor?

- A** Paint
- B** Word
- C** Photoshop
- D** Internet Explorer

b) In the tag given below which part is the “value”?
<table border = 1>

- A** 1
 - B** =
 - C** table
 - D** border
-

- c) Which one of the following is used to obtain feedback from the users?
- A Forms
 - B Frames
 - C Tables
 - D Hyperlinks
- d) Identify the **odd** one out from the following list:
- A JavaScript;
 - B VBScript;
 - C Java;
 - D Perl.
- e) Which one of the following is used to hide the comments from the old browsers?
- A //
 - B /* */
 - C <!-- -- >
 - D * *\\
- f) Script can be inserted in
- A head section only.
 - B body section only.
 - C both head and body sections.
 - D only in head and title sections.
- g) Which one of the following software is used to create and edit JavaScript programs?
- A Browsers
 - B Text editors
 - C Compilers
 - D All of above
- h) Which one of the following is an invalid variable declaration?
- A var CostPrice
 - B var Cost Price
 - C var Cost_Price
 - D var _costPrice
-

- i) In the statement: `FullName = FirstName + LastName`, “ + ” acts as
 - A a concatenation operator.
 - B an assignment operator.
 - C a comparison operator.
 - D a conditional operator.

- j) How would you access the element at index 5 in array `Cats`?
 - A `Cats [5]`
 - B `Cats (5)`
 - C `Cats (4)`
 - D `Cats [4]`

Question 2

[10 x 1 = 10]

Directions: fill in the blanks with appropriate words or phrases.

- a) are a block of codes that performs a specific task and returns a value.
 - b) is a description of how the object makes up a page we connect together to form a whole.
 - c) are JavaScript objects that are capable of storing a sequence of values.
 - d) Sequence of zero or more characters that are enclosed by double or single quotes is referred to
 - e) are used to store values that can be used in other parts of the program.
 - f) Parameters which are passed to a function are called
 - g)protocol is used to upload and download a file from the web.
 - h) The main content of a web page is inserted within tags.
 - i) Extension used for HTML documents is
 - j) Full form of HTML is
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Question 3

[15]

Directions: while answering the questions, indicate briefly, your working and reasoning wherever required.

- Where do we define the title of the web page? Write a statement to display the title of a web page as “Home Page”.
- Write HTML tag to insert an image name “logo.gif” with border of 5 pixels.
- Write four tags required in every HTML page.
- Write HTML code to generate the following table:

Sl. No.	NAME	DOB
---------	------	-----

- Sketch the table which will be generated by the following HTML code:

```
<html>
<head><title>TABLE</title></head>
<body>
<table border=1px>
  <tr>
    <th colspan = 2>GENDER</th>
  </tr>
  <tr>
    <td>Male</td>
    <td>Female</td>
  </tr>
</table>
</body>
</html>
```

- Why do we need to specify NAME attribute within a FRAME tag?
 - What are the two main requirements for web hoisting?
 - What type of organization does the domain name: www.telecom.net.bt belong to?
 - Is JavaScript an interpreted language or a compiled language? Explain.
 - onclick = “alert(“aha! an event!”);”
Above code is a part of a statement. Rewrite the code in correct form.
 - The value of string greet is “Good Morning”. What would be the value of greet.length?
 - Differentiate between ++i and i++.
-

m) Write the JavaScript statements to display the following output using for loop:

```

5 is the square root of 25
4 is the square root of 16
3 is the square root of 9
2 is the square root of 4
1 is the square root of 1

```

- n) Differentiate between methods and properties.
- o) Arrange the following objects according to object hierarchy:
Form, Window, Document, Checkbox.

SECTION B [50 MARKS]
Direction: Attempt any FIVE questions.

Question 4 **[10]**

- a)
 - (i) When do we use ALT attribute in HTML document? [2]
 - (ii) Code an example using ALT attribute. [2]
- b)
 - (i) Explain the difference between web server and web client. [1]
 - (ii) What protocol is used to communicate between web server and web client? [1]
- c) How many parent objects do you find in the following statement?
`window.document.myimage` [2]
- d) Differentiate between 'cell spacing' and 'cell padding'. [2]

Question 5 **[10]**

- a) Write a script to display the message, as shown in the screenshot, when the mouse hovers over the button: [5]

b) Analyze the function given below and answer the questions following it:
function increment(x, y)

```
{
    var product = 1;
    for (z=1; 2<=y; z++)
    {
        product = product*x;
        return product;
    }
}
```

When x = 2 and y = 3,

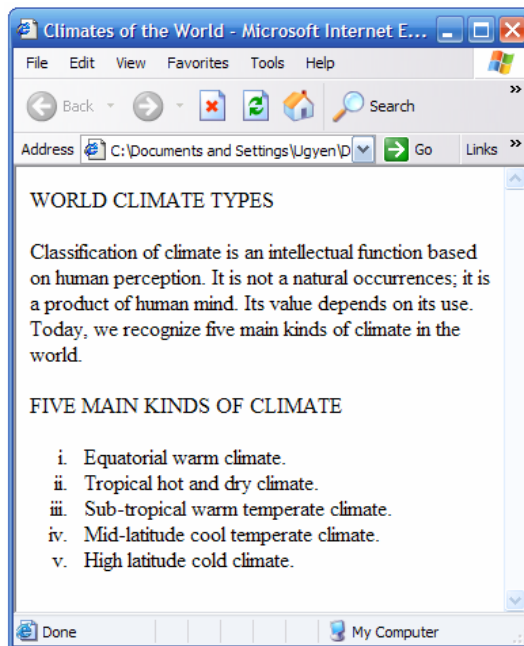
- (i) What is the value returned after first iteration? [1]
- (ii) What is the final value returned from this function? [3]

c) What standard file name is generally given to the home page? [1]

Question 6 [10]

- a)
 - (i) What is ISP? [1]
 - (ii) Name one ISP in Bhutan. [1]

b) (i) Write down the HTML code to generate the following web page: [4]



(ii) Modify the code in (i) above to set the font color of the title “Introduction and Characteristics” to blue and the font size to 16. [1]

- c) The resolution of a computer screen is 1024 pixels across and 768 pixels down. You are asked to create a table in HTML with the width of 75% of the screen resolution and a height of 400 pixels.
- (i) How wide is your table in pixels? [1]
 - (ii) Write down the HTML code for the above table with the border of 1 pixel. [2]

Question 7 [10]

- a)
- (i) Differentiate between an ‘empty tag’ and ‘container tags’. [2]
 - (ii) Give an example each. [1]
- b) Write HTML code to load a page named “logo.html” into a frame named “header” with a height of 20%. [3]
- c) Write the method to convert a string argument into decimals. [2]
- d) Explain the meaning of anchor tags. [2]

Question 8 [10]

- a)
- ```
var num;
prompt = ("Enter the number", " ");
alert (num%2 == 0: "Even" ? "Odd");
```
- (i) Rewrite the above code in the correct form. [2]
  - (ii) Rephrase the code from (i) such that it returns true for odd numbers. [2]
  - (iii) Rewrite the code from (ii) using if...else to obtain the same output. [3]
- b) JavaScript is widely used in web pages. What do you think is the reason? Give three justifications. [3]

**Question 9 [10]**

- a) Complete the function to achieve the following three tasks when the user clicks the button ‘Click Me’: [8]

```
<HTML>
<TITLE>Change Properties</TITLE>
<HEAD></HEAD>
<SCRIPT language = "JavaScript">

{

}
</SCRIPT>
<body>
<INPUT TYPE= "button" VALUE= "Click Me"
```

```
onClick= "change_property()">
</HTML>
```

- (i) changes the background color to yellow;
- (ii) changes the message on status bar to "You changed me!";
- (iii) opens the web page <http://www.druknet.bt> in a new window.

b) Explain domain name. [2]

**Question 10** [10]

- a)
- (i) Given the variable named Design and the following statements, what is the resulting output? [1]

```
var Design = new Array("3", "555", "77777",
"9999999", "0000000");
document.write(Design[3]);
```

- (ii) The second statement in the above code is modified to `document.write(Design[3]+Design[4]);`  
What is the output generated? [2]

- b)
- (i) What are event handlers? [2]
  - (ii) Give two examples. [1]

c) You are asked to design an HTML form for a survey where name, age group and gender information of the person will be entered.

What input type will you use for collecting information in each of the following cases? Give reason for your choice.

- (i) Age group: \_\_\_\_\_ [2]
  - (ii) Gender: \_\_\_\_\_ [2]
-