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| **CS4720 Internet Programming**  **Department of Computer Science**  **Kennesaw State University**  **Test 1**  **Tuesday, June 29, 2021 (due by 11:59pm)**  **Full Marks: 100**  **There are 14 Questions for a total of 100 points.**  **Answer ALL the questions** |

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***General Instructions***

* First, ensure you have all the 10 pages of this exam booklet even before starting
* This exam is closed notes and closed books. No discussions are permitted
* You may use Calculator
* Do not bring out your cell phone; don’t answer the phone; don’t read text messages
* You have 2 hour to complete the exam
* Write your answers clearly
* The size of the space given for each answer is sufficient
* Write no more than 3-4 lines for each of the short questions
* Show all your works for the Mathematical problems
* Even if your final answers are incorrect, you will get partial credit if intermediate steps are clearly shown to highlight thought process. This applies to program tracing questions as well.

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| Good Luck! |

**SHORT QUESTIONS. Write no more than 3-4 lines for each of the following questions.**

1. **[20] HTML Review**

Write a shot description for each of the following frequently used HTML tags:

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| **HTML Tag** | **Description** |
| <html> |  |
| <head> |  |
| <title> |  |
| <body> |  |
| <script> |  |
| <b> |  |
| <i> |  |
| <strong> |  |
| <em> |  |
| <p> |  |
| <br /> |  |
| <hr /> |  |
| <h1> to <h6> |  |
| <font> |  |
| <ol> |  |
| <ul> |  |

**HTML Review (contd)**

Write a shot description for each of the following frequently used HTML tags:

|  |  |
| --- | --- |
| <li> |  |
| <table> |  |
| <tr> |  |
| <td> |  |
| <th> |  |
| <img> |  |
| <!- - --> |  |
| <meta> |  |

1. [2] What do you understand by the term ‘deprecated tags’? Can you mention some of the HTML tags which have been deprecated?

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1. [5]
2. How many heading tags are there in HTML? Which one is the largest? Which one is the smallest?

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1. What is a URL and what are the component/structure of a URL?

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1. Typically what is the name of Document Root?

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**JavaScript Questions**

1. [5] Why does a number entered in a JavaScript prompt box need to be converted to a numeric data type?

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1. [5] What is the difference between Algorithm, Pseudocode and Source Code? What is the purpose of Pseudocode, if you can’t run it on a computer?

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1. [5] What is the difference between a *sequence structure* and *event-driven programming*?

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1. [2] How can you be sure that combined conditions are evaluated is a specific order?

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1. [3] Referring to Web Forms, why some one might use some hidden fields in the Form?

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1. [4] What does *Pixel* stands for? Write a number of Web Image Format Acronyms and elaborate their meaning.

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**CSS Questions**

1. [5] What are the different ways CSS can be used in HTML document?

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**CODING PROBLEMS**

1. [10] I have written the CSS as follows:

<html>

<head>

<style type="text/css">

<!--

.heading{

font-style: italic;

font-size: 24;

}

.content{

font-size: 12;

}

-->

#otherhead{

font-style: italic;

font-size: 12;

}

-->

</style>

</head>

Now show me the use of all the styles in <body> part. Explain the use of the styles.

1. [25 PT ]

Design a site according to the following requirements. Use **HTML, CSS** and **JavaScript**.

1. The first page (***index.html***) page should contain a form with three text boxes, name, e-mail address and password, and a submit button.
   1. The name field should not be blank and it should not have any digits.
   2. The e-mail address should be a valid one. For e-mail validation check for
      1. at least one character before the **@** sign
      2. at least one ‘**.**’ after the **@** sign
      3. at least five characters after the **@** sign
      4. at least two characters after the ‘**.**’
   3. Check the password to be ***“CS4720exam”***. The password is case sensitive. If the password is correct it will go to the next page (***main.html***)
   4. Show proper error messages in popup alert boxes.
2. The Home page should contain the links (***link.html***) should be:
   * 1. Home (***home.html***)
     2. Palindrome (***palin.html***)
     3. Table of Factorials (**factorial.html**)
     4. The status bar should show appropriate messages on ***“onMouseOver”*** and ***“onMouseOut”*** event
   1. The home page (***home.html***) should contain your name, id, e-mail address (with special tag) and your web site address. Use table to format this page.
   2. The palindrome page (***palin.html***) will contain one form with one text box and a submit button. It will check whether the given text is a palindrome (a text which spells exactly the same in either direction) or not.
   3. The Table of Factorial page (***factorial.html***) will contain one form with one text box and a submit button. Text box will accept a number between 1-10 and will show all the factorials from 1 upto that number entered
3. **Multiple Choice Question (MCQ). [3 pt]**

The prompt “Enter aa score or -1 to quit” is an example of using which of the following in a loop?

1. Accumulator
2. Sentinel value
3. Operator
4. Increment operator

What is the process that doesn’t evaluate a condition if the outcome has been determined?

1. Boolean
2. Concatenation
3. Relational
4. Short-circuit evaluation

A program is said to be robust if it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Contains a lot of code
2. Can handle many kinds of user errors without crashing
3. Runs quickly
4. Contains many submenus
5. ***[5 PT]***

***Data-Intensive Web Application (diwa): Discuss in short for the followings:***

* 1. What is DIWA?

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* 1. Life Cycle of DIWA

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* 1. Architecture of DIWA

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* 1. Tools & Techniques for DIWA

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