## TT TEMPLE

## Digital Systems

Exam\#3 Review - CSS, HTML \& JavaScript - Code Diagnosis

## Exam Will Cover Discussions from week 5,6 \&7

- Total of 18 multiple choice questions
- Readings and Lectures (55\%)
- CSS, HTML and JavaScript basics
- Variables
- Operator Types
- Strings
- Logical Operators
- Conditional Types
- Loops

- Coding - Demonstrate your ability to apply (45\%)
- Code Analysis \& Diagnosis


## Sample Question:

- A loop cannot start with a negative number?
- Refer to the example below:

$$
\text { for (var } i=-10 ; i<=30 ; i=i+5)\{
$$

- True or False


## Sample Question:

- A loop cannot start with a negative number?
- Refer to the example below: for (var i=-10; i <= 30; i=i+5) \{
- True or False


## Sample Question:

- What is your MPG if you have driven 320 Miles and used 20 Gallons of gas? (analyze the code)
A. 15
B. 16
C. 20
D. 32

```
1}<\mathrm{ <body>
```

<!-- replace the text below with your name!-->
<title> TYPE YOUR NAME HERE</title>

<script>
///
    // A car's miles-per-gallon (MPG) can be calculated with the following formula
    / MPG=Milesdriven/Gallonsofgasused
//
    function calculateMPG(miles, gas) \{

    // Insert your code between here and the next comment block. Do not alter //,
    // any code in any other part of this file
    ///////////////////////////////////////////////////////////////////////////////
        return miles/gas;
    //////////////////////////////////////////////////////////////////////////////
    // Insert your code between here and the previous comment block. Do not alter //
    // any code in any other part of this file.
    ////////////////////////////////////////////////////////////////////////
-
    var milesDriven \(=\) prompt('How many miles have you driven? ');
    var gasused = prompt('How much gas have you used driving that far? ')
    alert('You car is getting ' + calculateMPG(milesDriven, gasUsed) + ' MPG. ');
    </script>
    -</body>
    </html>
    
## Sample Question:

- What is your MPG if you have driven 320 Miles and used 20 Gallons of gas? (analyze the code)
A. 15
B. 16
(320/20)
C. 20
D. 32

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    //////////////////////////////////////////////////////////////////////////////
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    alert('You car is getting ' + calculateMPG(milesDriven, gasUsed) + ' MPG. ');
    </script>
-</body>
</html>
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,

## Sample Questions:

1. After 10 minutes, how many calories have you burned?
A. 0
B. 45
C. 67.5
2. After 30 minutes, how many total calories have you burned?
A. 112.5
B. 135
C. 450
D. 1350
3. If we change the initial value of $i$ to 20 how many times does the function run and how many total calories are burned?
A. 3,90
B. 5,135
C. 3,135
D. Does not run
4. If we change $\mathrm{i}<=30$ to $\mathrm{i}<=40$ how many times does the function run and how many total calories are burned?
A. 5,135
B. 7,180
C. 7,225
D. Does not run

## ! DOCTYPE html>

```
<html>
```

    ////////////////////////////////////////////////////////////////////////////
    // Insert your code between here and the previous comment block. Do not alter //
    // any code in any other part of this file.
// Insert your code between here and the previous comment block. Do not alter //,
// any code in any other part of this file.

<body>
    <!-- replace the text below with your name!-->
    <! -- -->
    <1-- -->
    <title> TYPE YOUR NAME HERE</title>
白<script>
function displayCaloriesBurned() \{
///////////////////////////////////////////////////////////////////////////
    // Insert your code between here and the next comment block. Do not alter
// any code in any other part of this file.
    // Insert your code between here and the next comment block. Do not alter
\(/ /\) // any code in any other part of this file.
    /////////////////////////////////////////////////////////////////////////////////
for (var \(i=10\); \(i<=30\); \(i=i+5\) ) \(\{\)
        alert('In ' \(+i+\) 'minutes, you will have burned \(++i \star 4.5+\) (calories');
    \}
<body>
<!-- replace the text below with your name!-->
<!-- -->
<title> TYPE YOUR NAME HERE</title>
c. 7,2
D.
```
    ////////////////////////////////////////////////////////////////////////////////
    -}
    displayCaloriesBurned();
    </script>
    -</body>
    </html>
```

\section*{Sample Questions:}
1. After 10 minutes, how many calories have you burned?
A. 0
B. 45
C. 67.5
2. After 30 minutes, how many total calories have you burned?
A. 112.5
B. 135
C. 450
D. 1350
3. If we change the initial value of \(i\) to 20 how many times does the function run and how many total calories are burned?
A. 3,90
B. 5,135
C. 3,135
D. Does not run
4. If we change \(i<=30\) to \(i<=40\) how many times does the function run and how many total calories are burned?
A. 5,135
B. 7,180
C. 7,225
D. Does not run

\section*{Sample Questions:}

Using the program myFunction.html, what is displayed when you pass 11 as the first number and 14 as the last number?
a. \(\quad 1114\)
b. \(\quad 25\)
c. 1411
d. \(\quad 50\)
e. None of the above
```
<!DOCTYPE html>
|<html>
|<body>
    <!-- replace the text below with your name!-->
    <!-- -->
    <!-- -->
    <title> TYPE YOUR NAME HERE</title>
|<script>
function myFunction (firstNumber, secondNumber) {
    var valueToReturn = 0;
for (var i = firstNumber; i<= secondNumber; i++ ) {
    valueToReturn = valueToReturn + i;
    -}
    return valueToReturn;
    -}
    var firstNumber = parseInt(prompt("What is the first number?"));
    var secondNumber = parseInt(prompt("What is the second number?"));
    alert (myFunction(firstNumber, secondNumber));
    </script>
    </body>
    </html>
```

\section*{Sample Questions:}

Using the program myFunction.html, what is displayed when you pass 11 as the first number and 14 as the last number?
a. 1114
b. \(\quad 25\)
c. 1411
d. \(\quad 50\)
\((11+12+13+14)\)
e. None of the above
```
<!DOCTYPE html>
```
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|<html>
|<html>
|<body>
|<body>
<!-- replace the text below with your name!-->
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    <!-- -->
    <!-- -->
    <!-- -->
    <!-- -->
    <title> TYPE YOUR NAME HERE</title>
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|<script>
|<script>
function myFunction (firstNumber, secondNumber) {
function myFunction (firstNumber, secondNumber) {
    Ny valueToReturn = 0;
    Ny valueToReturn = 0;
    for (var i = firstNumber; i<= secondNumber; i++ )
    for (var i = firstNumber; i<= secondNumber; i++ )
    valueToReturn = valueToReturn + i;
    valueToReturn = valueToReturn + i;
    -}
    -}
return valueToReturn
return valueToReturn
    -}
    -}
    var firstNumber = parseInt(prompt("What is the first number?"));
    var firstNumber = parseInt(prompt("What is the first number?"));
    var secondNumber = parseInt(prompt("What is the second number?"));
    var secondNumber = parseInt(prompt("What is the second number?"));
    alert (myFunction(firstNumber, secondNumber));
    alert (myFunction(firstNumber, secondNumber));
    </script>
    </script>
    </body>
    </body>
    -</html>
    ```
    -</html>
```


## Sample Question:

- What's wrong with the statement listed below?
var 365days = prompt ("How many days are in a year?");


## Sample Question:

- What's wrong with the statement listed below?
var 365days = prompt ("How many days are in a year?");

Variable name cannot begin with a number!

## Exam 3: Opens Friday (3/5) at 6 PM Close Sunday (3/7) at Midnight

## Good luck on the final!

Assignments Reminder:

1) Coding assignment due by midnight on $3 / 7$
2) Complete eSFF by EOD 3/8!
