

# University of Maryland College Park Dept of Computer Science CMSC389N Summer 2015 Midterm II

Last Name (PRINT):					
First Name (PRINT):					
University Directory ID (e.g., umcpturtle)					
I pledge on my honor that I have not given or received any unauthorized assistance on this examination.					
Your signature:					

#### **Instructions**

- This exam is a closed-book and closed-notes exam.
- Total point value is 200 points.
- The exam is a 75 minutes exam.
- Please use a pencil to complete the exam.
- WRITE NEATLY.
- You don't need to use meaningful variable names; however, we expect good indentation.

#### **Grader Use Only**

#1	#1 Problem #1 (HTML/CSS/ PHP/JS Language)		
#2 Problem #2 (PHP Coding)		(65)	
#3	#3 Problem #3 (JavaScript Coding)		
Total	Total	(200)	

## Problem #1, (HTML/CSS/PHP Language)

1. (3 pts) Name one use of server side includes. 2. (9 pts) Complete the following PHP assignment so we can open a file named "data.txt" (for reading). If the file cannot be opened, the script should end and the message "File Opening Failed" should be displayed. fp =3. (3 pts) What role cookies play (when enabled) in PHP sessions? 4. (3 pts) From a security point of view, why we would like to use the PHP functions **htmlspecialchars** and htmlentities? 5. (9 pts) Write a SQL command that will create a table named "books" that has two fields: a title (string) and a year (integer). 6. (6 pts) Write a SQL command that will insert a record in the "books" table above for a book titled "Aliens" published in the year 2000. 7. (6 pts) Write a SQL command that will display the titles of books from the "books" table above that were published after the year 2000. 8. (6 pts) Define JavaScript code that reads a value using prompt and prints the value provided using alert. 9. (3 pts) Define a JavaScript array with the values 10, 7, and 50.

a.	undefined
b.	null
c.	a. and b.
d.	None of the above.

- a. NaN == NaN b. NaN === NaN c. "20" == 20
- d. None of the above.
- 12. (3 pts) What is the DOM?
- 13. (3 pts) Define a JavaScript object that has two properties: **semester** with a value of "summer" and **year** with a value of 2005.

## **Problem #2, (PHP Coding)**

For this problem you will implement a loan processing application. The program consists of three files:

<ol> <li>apply.html → Displays a form where the user will provide a loan amount (see image below will use post and will call the script verify.php.</li> </ol>		
	Amount:	Enter value and click on this button for verification

2. verify.php → This script will approve or deny the loan. A loan is automatically approved if the amount is less than or equal to \$10,000; otherwise the loan is denied. Using sessions this script will pass the loan amount and whether the loan was approved or not to the confirmation.php script. The method used is post as well. The following image illustrates what verify.php should show after the loan has been evaluated:

Loan application processed Click on button to know results

3. **confirmation.php** → **Using sessions** this script will retrieve the amount and loan application decision. If the loan was approved, the script will display a page with the message:

"Your loan for the amount <AMOUNT> has been approved"

where <AMOUNT> corresponds to the loan amount.

Otherwise the message to print will be:

"Your loan for the amount <AMOUNT> has been denied"

For this problem feel free to use the function generatePage() we saw in class that allows you to generate an HTML document when you provide the body (e.g., generatePage(\$body)). Assume this function is in the file support.php (make sure you include it). **You may not use JavaScript for this problem.** 

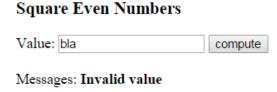
#### Problem #3, (JavaScript Coding)

Write a **JavaScript** (**NOT PHP**) program that allow us to display a table of even numbers between 0 and a number provided by a user through a form. For this problem you will provide the body of a **main** function and a **displayTable** function. In addition, you may add any HTML that you understand is needed. For this problem:

• Define the following form:

Square Even Numbers	
Value:	compute
Messages:	

• If the user enters a non-numeric value (e.g., "bla") or no value is provided, your program will display the message "Invalid value" next to "Messages:" when the **compute** button is selected. Here is an example:



• If the user provides a numeric value, your program will display a table with the powers of even numbers between 0 and the number provided. For example, after entering 10 in the form and clicking on the **compute** button your program will print the following table:

#### Squares Even Numbers up to 10



- Your **main** function will define the **displayTable** as the function the **compute** button will call when selected.
- The **displayTable** function will validate the value provided in the form and display the table. Notice the **displayTable** function does not have any parameters.
- You can use the function is NaN to determine whether a value is a number.
- Notice that the HTML and JavaScript appears in a single file.