

Portion of test	Points possible	Points missed	Points correct
Written:	60		
Code Modification:	20		
Debug/Coding:	20		
Total:	100		

Student's Name: _____

East Tennessee State University – Department of Computer and Information Sciences
 CSCI 2910 (Tarnoff) – Server/Client Side Programming
 TEST 3 for Spring Semester, 2007

Read this before starting!

- The total possible score for this test is 100 points.
- This test is ***closed book and closed notes***. A summary sheet is attached to the back of this test. You may remove it from the staple to use as a reference while taking this test.
- The test consists of two parts: a 50 point written portion (this document) and a 50 point computer-based portion. You must complete the written portion of the exam before you are able to begin the computer-based portion.
- For the written portion, all answers must be placed in space provided. Failure to do so will result in no credit for answer.
- If you perform written work on the back of a page in this test, indicate that you have done so in case the need arises for partial credit to be determined.
- For the computer-based portion, ***you are allowed to use only the following applications on your lab PC:***
 - ***Either Dreamweaver or Notepad for editing your web pages***
 - ***A browser of your choice for viewing the web pages you've created and accessing the class web site and www.php.net/manual as a reference. No other searching or browsing should be necessary and therefore is prohibited.***
- Statement regarding academic misconduct from Section 5.7 of the East Tennessee State University Faculty Handbook, June 1, 2001:

"Academic misconduct will be subject to disciplinary action. Any act of dishonesty in academic work constitutes academic misconduct. This includes plagiarizing, the changing of falsifying of any academic documents or materials, cheating, and the giving or receiving of unauthorized aid in tests, examinations, or other assigned school work. Penalties for academic misconduct will vary with the seriousness of the offense and may include, but are not limited to: a grade of 'F' on the work in question, a grade of 'F' of the course, reprimand, probation, suspension, and expulsion. For a second academic offense the penalty is permanent expulsion."

All problems are worth 2 points each unless otherwise stated.

1. For each of the following needs or characteristics of a web application, identify which would be better suited, a server-side application or a client-side application. (1 point each)

Restricting a client's access to source code:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Eliminating browser dependency:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Quick validation of form data:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Smaller files to download:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Interactive web page content:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Better support for complex projects:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side
Independence from client's operating system:	<input type="checkbox"/> Server-side	<input type="checkbox"/> Client-side

2. True or False: PHP ignores whitespace (carriage returns, tabs, etc.) between quotation marks when defining a string.
3. True or False: PHP code contained between the tags `<?php` and `?>` is processed in files with the ".html" extensions when they are downloaded from the server .
4. Which output function, *print* or *echo*, allows for multiple arguments separated by commas?
5. What is the output that results from the following set of PHP statements?

```
$s = "Thomas";  
print "My name is ".$s;
```

6. What is the output that results from the following set of PHP statements?

```
$p = 78.25;  
print "The item's value is \$$p.";
```

7. What is the output that results from the following set of PHP statements?

```
$a = array(5, 3, 4);  
print "The value of the array is $a.";
```

8. Of the following characters, **circle all** of the ones that must be escaped in a PHP string that is defined using double quotation marks, i.e., "...". (3 points)

a.) – b.) & c.) " d.) \ e.) . f.) \$ g.) ? h.) *

9. True or False: Within a string defined in PHP, single quotes can be used without escaping within double quoted strings and vice versa.

10. **Circle all** of the **valid** PHP variable names from the list below. (3 points)

a.) \$5b b.) salary c.) _count d.) \$_i e.) \$i f.) \$var1

11. What is the output that results from the following set of PHP statements?

```
$var1 = 46.94;  
$var2 = (int)$var1;  
print "The result is ".$var2;
```

12. What is the output that results from the following set of PHP statements?

```
$var1 = 46.94;  
$var2 = (bool)$var1;  
print "The result is ".$var2;
```

13. What is the output that results from the following set of PHP statements?

```
$var1 = "6 feet";  
$var2 = (int)$var1;  
print "The result is ".$var2;
```

14. Write the PHP function call that is equivalent to the MySQL command **use timetable;** Assume a connection to a MySQL session has been made and is named `$connection`. Base your answer on a function call from the "Accessing MySQL Through PHP" list on reference sheet.

15. What is the output that results from the following set of PHP statements? (4 points)

```
$stuff = array("apple" => 1, 0 => "dog", 5 => 9);  
$stuff[1] = 4.5;  
foreach($stuff as $a=>$b) echo "{$a} - {$b}\n";
```

16. Describe what `$result` would contain after executing the following PHP statements.

```
$myarray = array("a" => "car", "b" => "boat", "c" => "plane");  
$result = array_keys($myarray);
```

17. What exactly does `$result` contain after executing the following PHP statements.

```
$myarray = array_fill(5, 20, 0);  
$result = count($myarray);
```

18. What is the returned result of the PHP function `mysql_query()`? (2 points)

- a.) The next record from a table of results from a MySQL query
- b.) A reference to a table of results from a MySQL query
- c.) An array of the field names from a table in a selected MySQL database
- d.) A list of tables from a selected MySQL database

19. What is the output that results from the following set of PHP statements? (3 points)

```
function myfunc()  
{  
    static $var = 0;  
    $var += 5;  
    print "The value equals ".$var."\n";  
}  
myfunc();  
myfunc();  
myfunc();
```

20. In the PHP function call `$record = mysql_fetch_array($result, MYSQL_NUM)`, what is the purpose of the argument `MYSQL_NUM`?

21. After calls to `$record = mysql_fetch_array($result, MYSQL_NUM)` have exhausted all of the records from the query referenced by `$result`, what value will be returned for `$record` if one more call is made?

The questions 22, 23, and 24 use the snippet of PHP code shown below. The numbers along the left side are line numbers and are included only as a reference. They are not part of the code.

```
1:  class myClass
2:  {
3:      var $_name;
4:      static $_num = 0;
5:      private $_id;
6:
7:      function __construct($_arg1)
8:      {
9:          $_name = $_arg1;
10:         $_num++;
11:         $_id = $_num;
12:     }
13:
14:     function printID()
15:     {
16:         print "This instance's ID is " . $_id . "\n";
17:     }
18: }
19:
20: $a = new myClass("Tommy");
21: $b = new myClass("Betsy");
22: $c = new myClass("Mary");
23: $c -> printID();
```

22. What is the purpose of the keyword "private" in line 5?

23. Write the code that would retrieve the value stored in the variable `$_name` of instance `$a`.

24. What is the output from line 23 going to be?

25. What is the difference between including a file using ***include(URL_str)*** and including it using ***require(URL_str)***?

SQL/MySQL Syntax:

- INSERT INTO tablename (fieldname [, fieldnames]) VALUES (value [, values])
- DELETE FROM tablename WHERE fieldname=value
- UPDATE tablename SET fieldname=value WHERE fieldname=value
- USE database
- SHOW TABLES
- DROP TABLE tablename
- SELECT [ALL | DISTINCT] *| COLUMN1[, COLUMN2] FROM TABLE1 [, TABLE2] WHERE [CONDITION1 | EXPRESSION1][AND|OR CONDITION2 | EXPRESSION2] ORDER BY fieldname [, fieldnames] [ASC|DESC]

PHP Array and String Functions:

- foreach(arrayname as [indexname =>] varname)
- array_keys(\$array_name)
- count(\$array_name)
- array_name = array_fill(integer start , integer count , mixed fill_value)
- bool sort(\$array_name)
- bool asort(\$array_name)
- string join(string delimiter, arrayname)
- array explode(string separator, string string [, int limit])
- integer strlen(string)
- string substr(source , start [, length])
- integer strpos(source , substring [, offset])

Accessing MySQL Through PHP:

- \$connection = mysql_connect ("localhost", "zabc123", "password")
- mysql_select_db("dbname", \$connection)
- \$result = mysql_query(MySQL_statement_string, \$connection)
- \$record = mysql_fetch_array(\$result [, MYSQL_NUM |MYSQL_ASSOC | MYSQL_BOTH])
- mysql_close (\$connection)
- int mysql_errno(\$connection)
- string mysql_error(\$connection)
- void exit([string or int status])