**COMP 3540 Advanced Web Design and Programming**

Term Test II – Winter 2016

Student Name: Student Number:

1. (9 marks) Fill in the blanks in each of the followings.
2. The MVC application architecture consists of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The PHP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement takes all the text/code/markup that exists in the specified file and copies it into the file that uses the statement. This statement will produce a fatal error and stop the script upon failure.
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a standard language for accessing relational databases.
5. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement returns a result set of selected records from one or more tables in a relational database.
6. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ clause is used to filter the results and apply conditions in some statements that are used for accessing databases.
7. The HTML \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ element is used to read data from the user and send the data to the web server.
8. The PHP \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ function searches string for pattern, returning true if patter exists, and false otherwise.
9. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a sequence of characters that define a search pattern.
10. The PHP date() function formats a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to a more readable date and time.
11. (3 marks) A MySQL database table, questions, has 4 columns – qid, question, category, and user. Give a statement to retrieve all the questions stored in this table, where

* Questions are posted by ‘john’, and
* Question category is ‘Science’ or ‘Literature’.

1. (3 marks) Write example PHP code to connect to a MySQL database.
2. (6 marks) Write a regular expression to check a password, where the followings should be supported.

* Passwords should use characters that are lower-case alphabets, upper-case alphabet, 10 digits, and special characters, !, @, #, %, ^, \*.
* Passwords should include minimum 6 characters.
* Passwords should start with a digit. (It is not ideal, but just for test.)
* Passwords should include at least one of !, @, #, %, ^, \*.

1. (3 marks) Write the PHP code to create an array for the following table. The array should be an array of two associative arrays.

|  |  |  |
| --- | --- | --- |
| ***Name*** | ***Stock*** | ***Sold*** |
| Volvo | 22 | 18 |
| BMW | 15 | 13 |

1. (4 marks) Complete the following JavaScript code to send multiple values with one name.

<form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_='get' \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_='test.php'>

Courses:

<input type="checkbox" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_="COMP2680">COMP2680

<input type="checkbox" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_="COMP3540">COMP3540

<input type="checkbox" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_="COMP4620">COMP4620

<input type=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_='Submit'>

</form>

1. (3 marks) Write the PHP code that prints all the values sent from the form in the question 6).
2. (6 marks) Write the PHP function that is given username and password as parameters, and checks if they are valid with a MySQL database. The function should return a *Boolean* value.

* ‘users’: the table that stores all the usernames and their passwords.
* $conn: a global variable that is used to access the database. (You should not include the code to connect to the MySQL database. You just need to use this variable.)

1. (6 marks) Write the PHP code, where

* Two inputs are sent from the client, with the names ‘username’ and ‘password’, using the post method.
* The function in 8) is used for checking the validity of ‘username’ and ‘password’.
* The function in 8) is stored in ‘model.php’.
* When they are valid, ‘main\_page.php’ should be included.
* When they are not valid, ‘start\_page.php’ should be included.