JARAMOGI OGINGA ODINGA UNIVERSITY

OF SCIENCE & TECHNOLOGY

UNIVERSITY EXAMINATIONS 2012/2013

2ND YEAR 1ST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (COMPUTER SECURITY AND AUDIT)

(KISUMU L.CENTRE)

COURSE CODE: IIT 3214

COURSE TITLE: WEB APPLICATION TECHNOLOGIES

DATE: 13/8/2013   **TIME: 2.00-4.00 PM**

DURATION: 2 HOURS

INSTRUCTIONS

1. This paper consists of 5 Questions.
2.   Answer Question 1 (Compulsory) and any other 2 questions.
3. Write your answers on the answer booklet provided.

Question1 30 marks

1. What is the difference between the ID and the CLASS selector CSS? (4 marks)
2. Meta tags are found within what tag in a HTML document? Why is in important to have Meta tags in a HTML document? (4 marks)
3. Why should images used in websites be small in file size? How can you reduce the file size of an image? (2 marks)
4. What is SEO –Search Engine Optimization and what are two methods used in the process? (2 marks)
5. What is an IDE? What IDE have you used this semester in class? (2 marks)
6. What is the difference between POST and GET in the HTML form processing methods? (2 marks)
7. What is the use of a Cookie in web technology? (2 marks)
8. In PHP what is a:
   - Variable (2 marks)
   - Function (2 marks)
   - Constant (2 marks)
   - Session (2 marks)
   - Include (2 marks)
9. The mail function can work in WAMP server. Is this true or false? (2 marks)

Question two 20marks

1. It is good to develop good practice when working on a website design and development project.
   a. Describe good practice from idea formulation, coding HTML, file naming, file storage and arrangement. (10 marks)

   b. Write the basic mark up of a basic html document. The CSS file is attached within which tag? The <table></table> tags are found within which major tag? (10 marks)

Question 3 20marks

a. Using basic PHP syntax, write down the code that can be used to calculate and display "The value of the sum between 4+5=9". Be sure to use variables. (6 marks)

b. In case you encounter an error on a piece of code that you consider to be correct, what symbol would you use to ensure that the error is not displayed on the browser? (2marks)

c. Take a look at the code below.

```
<html>
<body>
<?php
/*
The code below should be displayed on the browser.
If it's not then there could be something wrong with the
Syntax used.
*/
$x=1;
while($x<=20)
{
echo ("$x<br/>");
        ++$x;
}
?>
</body>
</html>
```

What would be displayed on the browser when the page containing the code is loaded? (4 marks)

d. Why are constants important in PHP? (2 marks)

e. Identify the **constant** in the example below: (2 marks)

```
<html>
<body>

<?php
$r=7;//radius
$pi=M_PI;
$area=$pi*($r*$r);
echo("The area of the circle is:$area");
?>
</body>
</html>
```

Result:

The area of the circle is: 153.9380400259

f. Name four **functional** uses of a session in PHP? (4 marks)

Question 4 20marks

a. What information is required in order to access a MySQL Database?   (6 marks)
b. On accessing the Database what statement can be used to access all data from a table
   called "employees"?   (2marks)
c. Explain the difference between system time and server time?   (6 marks)
d. Information can be gotten from the server while the user is still viewing a webpage –
   without reloading. What technology is used to make this possible?   (2 marks)
e. Explain two ways in which access to a page can be restricted using PHP e.g. Expired login?
                                                                              (4 marks)

Question 5 20marks

a. In PHP, what is a class? And what is its use?   4 marks)
b. In PHP, why is it important to use lower case as much as possible?   (2 marks)
c. In Web Development, commenting done by a developer can be very useful in the future.
   Name 4 uses of such comments?   (4 marks)
d. What is Object Oriented Programming (OOP)? Joomla is a fine example of OOP, why?
                                                                              (4 marks)
e. What are frameworks, and what are they used for in Web Development? Name one type
   of framework.   (6 marks)