



JARAMOGI OGINGA ODONGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS
INFORMATION SYSTEMS
4th YEAR 1st SEMESTER 2017/2018 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE : IIS 3418
COURSE TITLE : WEB APPLICATION DEVELOPMENT
EXAM VENUE : LR15 **STREAM: BIS**
DATE :22nd December, 2017 **EXAM SESSION :**
TIME: 2.00 – 4:00

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE 30 MARKS

- a) What is the difference between Internet and Intranet? **(2 marks)**
- b) How do you understand the term “The web?” **(2 marks)**
- c) What is a protocol? **(2 marks)**
- d) How related are HTML and HTTP? **(4 marks)**
- e) Describe what happens when a client using a web browser is downloading a document from a web server. **(3 marks)**
- f) What is a domain name? **(2 marks)**
- g) Can you have a website without a domain name? Explain **(3 marks)**
- h) Analyze the following HTML code and point out all the errors **(4 marks)**

```
Html
<HEAD>
<TITLE>Welcome to web design</HTML>
<BODY><img =”logo. jpg”> <A>click me <A>
<Body>
<Head>
```

- i) Differentiate between Internal links and External links. **(2 marks)**
- j) Define a database driven web-site **(2marks)**
- k) Outline the purpose of web-sites to corporate organizations **(2 marks)**
- l) Distinguish the macromedia Dreamweaver from HTML language **(2 marks)**

QUESTION TWO 20 MARKS

What will the following codes output to the browser

(a)

```
$x = 3;
++$x < 4;
```

(2 MARKS)

(b)

```
<html><head><title>Changing the type of a
variable</title></head><body>
<?
$undecided = 3.14;
echo gettype($undecided);
echo " is $undecided<br>";
settype($undecided, 'String');
echo gettype($undecided);
echo " is $undecided<br>";
settype ($undecided, 'integer');
echo gettype($undecided);
echo " is $undecided<br>";
settype($undecided, 'boolean');
echo gettype($undecided);
echo " is $undecided<br>"); ?></body></html>
```

(3 MARKS)

(c)

```
<?php
$no_of_calls = 0;
Function numberedHeadings($txt) {
    global $no_of_calls;
    $no_of_calls++;
    print "<h1>$no_of_calls. $txt</h1>"
}

numberedHeadings("Widgets");
Print "We build a fine range of widgets";
numberedHeadings("Doodas");
Print "Finest in the world";
?>
```

(5 MARKS) Explain your answer

(d)

```
<?php  
  
Function addFive(&$num) {  
    &num +=5;  
  
}  
$Some_num = 10;  
addFive ($some_num);  
  
Print ($some_num);  
  
?>
```

Explain your answer (5 MARKS)

(e)

```
$num = 33;  
  
(boolean) $num;  
  
echo $num;
```

Explain your answer (2 MARKS)

(f)

```
<?php  
  
class myCar {  
  
    var $color = "silver";  
  
    var $make = "mazda";  
  
    var $model = "protege5";  
  
}
```

QUESTION THREE 20 MARKS

- a) Using your knowledge in PHP and MySQL write lines of code to demonstrate
- Database connection **(2 Marks)**
 - Selecting a database **(2 Marks)**
 - Query the table selecting ALL its FIELDS **(2 Marks)**
 - Generating the **number of items** in a query result **(2 Marks)**
- b) With relevant diagrams; describe key features of the two types of sockets in socket programming. **(6 Marks)**
- c) Describe what JavaScript can do as far as web based application development is concerned. **(6 Marks)**

QUESTION FOUR 20 MARKS

- (a) Mention any **THREE PHP MYSQL functions** and explain their uses in bringing interaction/connection between the database and browser **(6 Marks)**
- (b)
- i. MySQL has several DATATYPES that supports different sizes and types of user data. Mention **THREE** datatypes **(3 Marks)**
 - ii. What MySQL datatype do you think will be appropriate for the following Cases In a Students database **(3 Marks)**
 - A **Registration number** for a college students system
 - The Reporting date
 - The login Time
- (c) When working with MySQL the following concepts are necessary to understand. Explain each of them
- i. A Primary Key **(2 Marks)**
 - ii. A NULL item **(2 Marks)**
 - iii. AUTO_INCREMENT **(2 Marks)**
 - iv. FIELD SIZE **(2 Marks)**

QUESTION FIVE 20 MARKS

- a) Describe the term scripting language **(2 Marks)**
- b) There are two categories of scripting languages namely; Open-source scripting languages and Proprietary scripting languages. You are required to describe the two categories, giving atleast two example of each. **(6 Marks)**
- c) What is a database driven web application? **(2 Marks)**
- d) Enumerate **FOUR** reasons why we need database driven web sites **(4 Marks)**
- e) Write down the output of the following HTML tags. **(6 Marks)**

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>Notice</h1>
    <p>This is a <em>sample</em> Web page.</p>
    <p><pre>Next paragraph:
  preformatted.</pre></p>
    <h2>More Info</h2>
    <p>Specifically, we're using XHTML 1.0 transitional.<br />
    Next line.</p>
  </body>
</html>
```

END