JARAMOGI OGINGA ODINGA 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	**:**	**STREAM**	**:**
DATE	**: December, 2018**	**EXAM SESSION**	**:**

TIME: 2.00 HOURS

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_callss. $txt</h1>"
}
```

Explain your answer

(5 MARKS)

(d)

```php
<?php

Function addFive(&$num) {

&num +=5;

}
```

Explain your answer **(5 MARKS)**

(e)

```php
$num = 33;

(booleean) $num;
```

Explain your answer **(2 MARKS)**

(f)

```php
<?php
class myCar {

        var $color = "silver";

        var $make = "mazda";

        var $model = "protege5";

}
```

(3 MARKS)

QUESTION THREE 20 MARKS

a) Using your knowledge in PHP and MySQL write lines of code to demonstrate
   i.   Database connection   **(2 Marks)**
   ii.   Selecting a database   **(2 Marks)**
   iii. Query the table selecting ALL its FIELDS   **(2 Marks)**
   iv.   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 programing.

(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 at least two example of each. **(6 Marks)**

c) The Corporate Image is expanding fast and we invite competent individuals in the following fields to apply for positions in our company:

   - Production (Offset and Screen-Printing)
   - Graphics
   - Accounting & Finance
   - Sales

   We have positions based on qualifications and experience at both junior and senior levels.

   Position of Interest: [   ]

   Minimum Salary Requirement: [   ]

Years of Experience: [   ]

Name and Address: [▲]
                                                [   ]
                                                [▼]
                                                [◄ [ ]   ►]

Phone :   [   ]

EMail Address: [   ]

Resume (pls paste):   [▲]
                                                [   ]
                                                [   ]
                                                [▼]
                                                [◄ [ ]   ►]

                    [Submit]   [Reset]

Required:

Write code to display the follow form.   **(12 Marks)**

                              END