



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF INFORMATION
COMMUNICATION AND TECHNOLOGY
4th YEAR 1st SEMESTER 2018/2019 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE : ICT 3414

COURSE TITLE : WEB APPLICATION TECHNOLOGY

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

- (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 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 programming. (6 Marks)
- c) Describe what JavaScript can do as far as web based application development is concerned. (6 Marks)

QUESTION FOUR 20 MARKS

You are required to produce a form which will be able to capture the Students details as shown below.

Faculty Registration

Fname:

Lname

Gender:

Female: **Male:**

Program:

Session:

Day

Evening

Weekend

(20 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