



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**

**DEPARTMENT OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR SCIENCE IN  
SECURITY AND FORENICS**

**1<sup>ST</sup> YEAR 1<sup>ST</sup> SEMESTER 2015/2016 ACADEMIC YEAR**

**MAIN CAMPUS**

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**COURSE CODE: IIT 3114**

**COURSE TITLE: HTML PROGRAMMING AND INTERNET TOOLS**

**EXAM VENUE:**

**STREAM: SECURITY/BIS/ICT**

**DATE: DECEMBER 2016**

**EXAM SESSION:**

**TIME: 2.00 HOURS**

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**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) Differentiate between the following
- (i) Web page and Web site [2 Marks]
  - (ii) WWW and Internet [2 Marks]
  - (iii) HTML and SGML [2 Marks]
- b) Using a code snippet explain how a client side script can be added to a web page. [4 Marks]
- c) Write HTML code that will do the following [4 Marks]
- (i) Make the text “Hello World” bold and italic
  - (ii) Add a link to send email to you.
  - (iii) Change the background color of a page to red
  - (iv) Set the title of the web page to “JOOUST”
- d) Briefly explain the function of the following Internet Protocols [4 Marks]
- (i) Transmission Control Protocol (TCP)
  - (ii) User Datagram Protocol (UDP)
- e) Add comments to the code snippet below indicating the outcome of each statement. [3 Marks]
- ```
<SCRIPT LANGUAGE="JavaScript">
var a,b,c;
a=4;
b=++a;
c=a++;
document.write("a is ",a);
document.write("<br> b is ",b);
document.write("<br> c is ",c);
</script>
```
- f) With an aid of a well labelled diagram, explain the function of each of the seven layers of the OSI reference model. [9 Marks]

## QUESTION TWO

[20 MARKS]

- a) Distinguish the following
- (i) HTML element and HTML attribute.
  - (ii) JPEG images and GIF images
  - (iii) Client side scripting and server side scripting
  - (iv) Static and dynamic web pages [8 Marks]

- b) Write a HTML code that would create a table that has a heading above it labeled Movies. This should be a different color. The table should have **three** columns and **four** rows. The column headings should be bolded and read Title, Summary, and Rating. You will fill in the other rows with your three favorite movie titles, a brief summary, and the movie rating. The border should be set to “1” so we see the border. [6 Marks]
- c) Using examples explain three ways of adding cascading style sheets to your web site. [6 Marks]

### QUESTION THREE

[20 MARKS]

- a) Discuss four principles that you would consider when designing the user interface. [8 Marks]
- b) An institution that offers various programs requires a web application form to capture details of an applicant. The information to be captured include:
- Applicants name, date of birth, phone number, address and gender
  - Preferred course(BIT, BBIT, BCOM etc, campus (Nairobi, Bondo, Kisumu, Busia, Eldoret etc) and mode of study (regular, evening or eLearning).
  - Comments from the applicant.

Required:

- (i) Draw a design of the form that fetch this information from the user. [4 marks]
- (ii) Write the HTML code for the form [6 marks]
- (iii) A brief explanation on how you have applied the usability principles in your design. [2 marks]

### QUESTION FOUR

[20 MARKS]

- a) Explain how the following services operate on the internet
- (i) Email
  - (ii) World Wide Web
  - (iii) Domain Name Systems [9 marks]
- b) Using examples illustrate how you would display ordered and unordered lists on a web page using HTML. [6 marks]

- c) Write HTML code that will do the following. Include some possible attributes of the elements and a brief explanation of attributes included
- i. Create a link to the webpage ejoooust.ac.ke.
  - ii. Display an image logo.jpg with a width of 200 and height of 200.
  - iii. Change the background color of a page to red
  - iv. Add a music file to the page
  - v. Add an inline style sheet. [5 marks]

## **QUESTION FIVE**

**[20 MARKS]**

- a) “Sockets play significant role in the client-server model”. Using any two types of sockets you know, explain in support of this statement. [6 Marks]
- b) Explain the difference between the following
- (i) JavaScript and Java
  - (ii) document.getElementById() and document.write()
  - (iii) onClick and onBlur event [6 marks]
- c) Write JavaScript codes that will perform the following
- (i) Get three numbers from the user through a prompt box then display the sum and average of these numbers on the web browser. [3 marks]
  - (ii) Define a JavaScript function that receives a person’s age and if the age is greater than or equal to 18 it displays the word “Adult” on the browser else it displays “Child” [3 marks]
  - (iii) Write a script that displays all even numbers between 20 and 100 on the users’ web browser. [2 marks]

**- END -**