



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SIT 109: INTERNET TECHNOLOGY

DATE:

TIME:

INSTRUCTIONS

Answer **question ONE** and any other **TWO** questions.

QUESTION ONE (30 MARKS)

- a) State any FIVE factors affecting the speed of the internet (5 marks)
- b) State any THREE Requirement for Web Developing Using Html (3 marks)
- c) Write a java script code that will generate a button that will produce a message on the status bar when a mouse pointer moves over it. (4 marks)
- d) Explain any FIVE requirements for internet connectivity (5 marks)
- e) Explain TWO main ways of connecting to the Internet (4 marks)
- f) Differentiate between web client and web server. (2 marks)
- g) State the purpose of the Uniform Resource Locator (URL) in the Internet. Name the two basic parts of a URL address. (3 marks)
- h) Write html code to display the following (4 marks)

Out put:

1. IT units
 - o BCIT
 - o SAD
 - o IMIS
2. Programming units
 - o visual B
 - o visual C+
 - o HTML
3. Engineering
 - o Computer
 - o Networking
 - o Repairs

QUESTION TWO (20 MARKS)

- a) Explain the code below and give the output to be displayed (5 marks)

```
<html>
<head>
<title>JavaScript page </title>
</head>
<body>
<p>This is machakos university college </p>
<script language="JavaScript">
<!--
document.write("Department of computing and IT ");
//-->
</Script>
<p>School of Engineering and Technology </p></body>
</html>
```

- b) Write html code to output the following (4 marks)

```
Days of the week:,
Monday
Tue
Wed
```

- c) Identify the parts of the following e-mail address labeled A, B, C and D. (4 marks)

Iat@africaonline.co.ke



A B C D

d) Write html code to display the output below.

(7 marks)

student	course	duration
mwangi	IT	1yr
mary	Accounts	6 months
John	programming	6 months
Otieno	Sales	1yr

QUESTION THREE (20 MARKS)

a) Write a JavaScript program to compute the net salary given that:-

(6 marks)

Basic salary = 10,000

House allowance = 4,000

Medical allowance = 1500

P.A. Y. E = 2000

Use variable declaration

b) Explain any FIVE services offered by the internet in the organization

(10 marks)

c) Below is dialogue box for composing mails. Explain the parts.

(4 marks)

QUESTION FOUR (20 MARKS)

- a) How can a firewall be used as proxy? What are the advantages of making a proxy server? (5 marks)
- b) What are the differences between the conventional cryptographic systems and the modern cryptographic systems (5 marks)
- c) Explain any TWO ways that search engines use to locate web pages (4 marks)
- d) A program is required to compute tax paid from employee's salary. The tax rate depends on the salary bracket of the employee. The user inputs the salary through the key board.

The classification of salaries and the tax rate is as follows:

10,000 and above	– 16%	
5,000 – 49,999	– 14%	
2,000 - 39,999	- 12%	
1999 below	-Tax Free	(6 marks)

QUESTION FIVE (20 MARKS)

- a) Explain using a diagram the general model of public signature model. Explain how the document is digitally signed by the sender and how the receiver ensures the authenticity and integrity of the document (8 marks)
- b) Explain the salient features of secret key cryptography. What are the shortcomings of secret key cryptography? (4 marks)
- c) Explain any FOUR considerations when choosing an ISP. (8 marks)