



MACHAKOS UNIVERSITY

University Examinations for 2022/2023

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

SECOND YEAR SECOND SEMSTER EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

BACHELOR OF SCIENCE (MATHEMATICS AND COMPUTER SCIENCE)

BACHELOR OF EDUCATION

SIT 224 WEB DESIGN

DATE:

TIME:

INSTRUCTIONS:

*This paper consists of **FIVE** questions.*

*Answer **QUESTION ONE** and other **TWO** questions in this paper.*

QUESTION ONE (COMPULSORY 30 MARKS)

- a) Define the following terms (3 marks)
 - i. Gopher
 - ii. Protocol
 - iii. Web server
- b) . Explain the FIVE components in a web application (5 marks)
- c) Using a learning institution, discuss the layout architecture of the inter-net. (4 marks)
- d) Write a HTML code to output the following information (5 marks)

NO	COUNTRY	STAPLE FOOD	RATING	
1	Kenya	Ugali	Good	
2	Uganda	Matoke	Perfect	
3	Tanzania	Rice	Okay	
e)	Write a Java script code to display even numbers starting from 1			(3 marks)
f)	Describe the syntax of a well-formed XML document			(4 marks)
g)	Outline any TWO characteristics of PHP variables.			(2 marks)
h)	Describe the TWO major components of the client /server architecture			(4 marks)

QUESTION TWO (20 MARKS)

- With aid of an example explain the TWO major components of a Unified Resource Locator (URL). (4 marks)
- Briefly explain why the internet can be termed as “International Marketer” (4 marks)
- Machakos University plans to register students online for an upcoming event within the university. The university has contracted you to design a web registration form to register the students. Using HTML nad CSS write a code to design the form below. (6 marks)

The image shows a web registration form with the following fields and button:

- Enter First Name
- Enter Last Name
- Enter your email address
- Enter Phone Number
- Enter password
- Confirm password
- Sign Up (button)

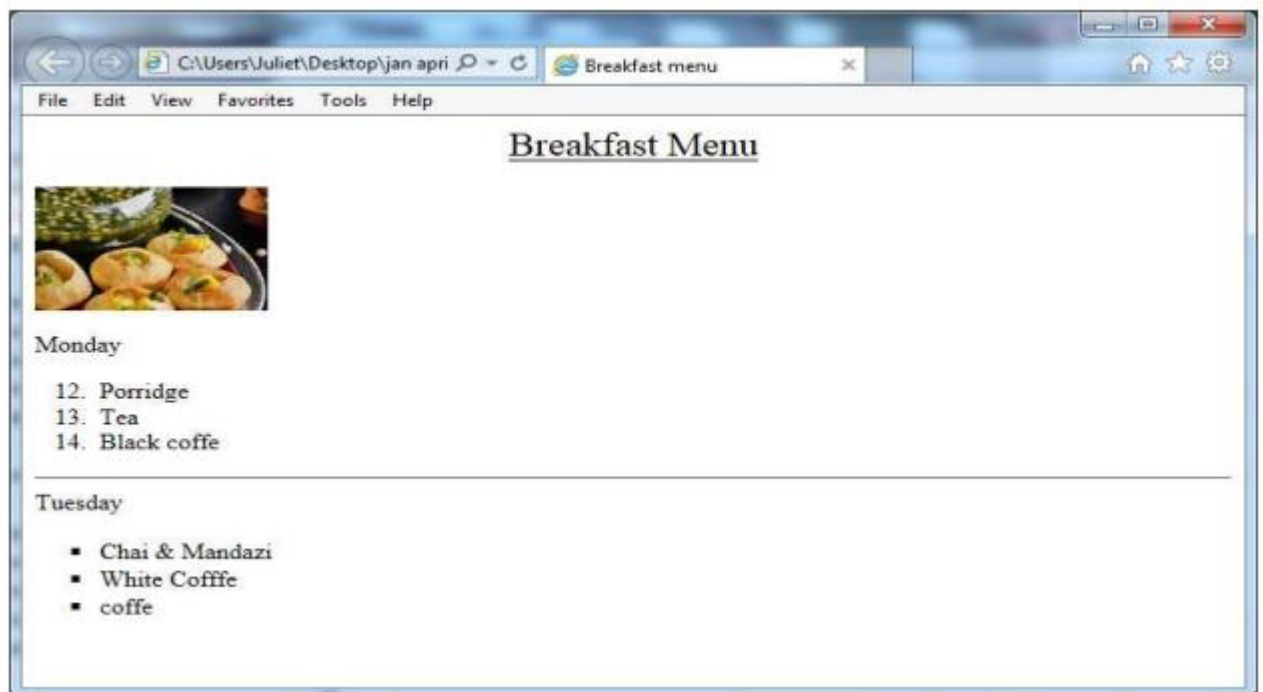
- Discuss any three features implementable using CSS. (6 marks)

QUESTION THREE (20 MARKS)

- a) Write a JavaScript code embedded on a HTML page to output the statement “Sorry the page is under construction” when a user clicks on a button “Latest Updates” (8 marks)
- b) Explain the difference between relative and absolute links, using HTML example for each of them (6 marks)
- c) Highlight how modern organizations respond to business pressures in this era of globalization. (6 marks)

QUESTION FOUR (20 MARKS)

- a) When designing a website, it is important to make sure the site is adhesive to the visitors and customers as well. Discuss FOUR factor’s you would consider while designing and implementing a website. (8 marks)
- b) Explain the functions of the following attributes. Give an example where each of the attribute is used (4 marks)
 - i. Alt
 - ii. Title
 - iii. Lang
 - iv. Href
- c) Write a suitable HTML list code that would output the nested list as it appears in figure below (6 marks)



- d) State and explain any TWO ethical issues when using the internet. (2 marks)

QUESTION FIVE (20 MARKS)

- a) Web applications are built in standards based technologies such as HTMLS, CSSs, PHP and other modern web technologies Web applications can run on pretty much any platform with a modern web standards- compliant web browser. All above is what has made web applications popular
- i. State and explain any five good reasons for companies to build web applications. (5 marks)
- ii. Explain web application development process, which provides a good outline for a web application lifecycle process. (6 marks)
- b) Distinguish the terms below:- (4 marks)
- i. Web service and Add Ons
- ii. Cookie and a pop up Blocker
- c) List the qualities of a good web designer and explain each of the qualities providing references of real life application to support the quality. (5 marks)