(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR

THIRD YEAR 1ST SEMESTER EXAMINATIONS

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

COURSE CODE: BIT 313

COURSE TITLE: WEB SYSTEMS AND TECHNOLOGIES II

DATE: 13TH DECEMBER 2022   **TIME:** 8:00 – 10:00AM

INSTRUCTIONS TO CANDIDATES

Answer Question **ONE (1)** and Any **OTHER 2** questions
Ensure your answers/ideas are clearly expressed
All your answers must be clearly numbered
Write in ink. Rough work can be done in pencil and will not be marked. Cross out any rough work.
Calculators, phones, tablets, computers not allowed

TIME: 2 Hours 20 Minutes (20 minutes for reading and choosing questions)

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 07 Printed Pages. Please Turn Over. ▶

QUESTION ONE: COMPULSORY QUESTION [30 MARKS]

(a) Briefly explain what cookies and web beacons are. What is their use in web sites [6 Marks]

(b) What privacy mechanisms do cookies provide in web systems. [4 Marks]

(c) How do the following technologies assist is designing a web system [6 Marks]

   (i) CSS

  (ii) HTML

 (iii) Scripting languages eg. Javascript

(d) State technologies used to design dynamic web systems. [4 Marks]

(e) With the aid of a diagram, explain the web architecture clearly indicating the place of the client side and the server side in the architecture [10 Marks]

QUESTION TWO [20 MARKS]

(a) Explain **THREE** ways of inserting Style Sheet to a web page. [6 Marks]

(b) In each of the way explained in (a), with help of code, demonstrate how to insert CSS in a web page [14 Marks]

QUESTION THREE [20 MARKS]

(a) Explain the use of protocols in websites. [2 Marks]

(b) State and briefly explain commonly used protocols in web systems [6 Marks]

(c) Explain the following terms: [8 Marks]

   (i) Domain Name

  (ii) Suffix Name

 (iii) Directory

 (iv) Web page

(d) State and explain any **FOUR** advantages of website. [4 Marks]

QUESTION FIVE [20 MARKS]

(a) What typical functionalities of the client server model. [8 Marks]

(b) Briefly functions of a web server. [4 Marks]

(c) Explain software development guidelines. [8 Marks]

QUESTION FOUR [20 MARKS]

(a) Explain why the following skills would be required in web systems development [14 Marks]

    (i) Content experts

   (ii) Website designer

  (iii) Graphic designers

  (iv) Web developers

   (v) Hardware and software support resource

  (vi) System administrator

 (vii) Web researcher

(b) Briefly explain the process of registering a domain name and state some of the biggest registrars where you can register your domain name. [6 Marks]