MACHAKOS UNIVERSITY

University Examinations for 2021/2022

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

SECOND YEAR SPECIAL / SUPPLEMENTARY EXAMINATIONS FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SIT 209: WEB DESIGN AND PROGRAMMING

DATE: 26/8/2022   **TIME: 2.00-4.00 PM**

INSTRUCTIONS:

Answer question ONE and any other TWO questions

QUESTION ONE (30 MARKS)

a)   Compare the terms INTERNET and WEB   (2 marks)

b)   Explain the term search engine as used in the web   (3 marks)

c)   Give a hyperlink example for each of the protocols listed   (4 marks)

       i.   HTTP -

       ii.   HTTPS -

       iii.   FTP -

       iv.   E-mail -

d)   Differentiate between client – side scripting and server – side scripting.   (4 marks)

e)   Tables are very useful to arrange in web application HTML pages. Tables are just like spreadsheet and they are used very frequently by almost all web developers. Explain the following HTML tables tags   (5 marks)

       i.   <caption>

       ii.   <th>

       iii.   <tr>

       iv.   <td>

       v.   <thead>

f)   Explain the term java applets and network programming   (4 marks)

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

h)   Mention any two features of a good website.   (2 marks)

QUESTION TWO (20 MARKS)

a)   A business man recently opened online business involved with selling of goods, he wishes to register a domain name for the company, briefly describe the steps involved to register the domain name.   (5 marks)

b)   Explain and demonstrate the what should be in your webhosting checklist.   (5 marks)

c)   Discuss 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)

d)   Describe the syntax of a well formed XML document   (5 marks)

QUESTION THREE (30 MARKS)

a)   i.   Define the term URL   (1 mark)

      ii.   Using an example, state and explain the THREE major components of a URL.

                                                                               (4 marks)

b)   Illustrate with a detailed diagram the client server architecture in a web browser (10 marks)

c)   What is a distributed system?   (1 mark)

d)   Distinguish between an e-mail and web mail giving advantages of each.   (4 marks)

QUESTION FOUR (20 MARKS)

a)   Differentiate between the following terms:-   (8 marks)

      i.   XHTML and HTML5

      ii.   Web service and Add ons

      iii. Cookie and a pop up Blocker

      iv.   Dynamic and static Web page

b)   Write a Javascript program using a while loop to output 10 numbers, starting from number 0 to 10.   (4 marks)

c)   Using an illustration explain,

      If…………….else if………………..else statement   (4 marks)

d)   List four font properties permitted in style sheets.   (4 marks)

QUESTION FIVE (20 MARKS)

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 flatform with a modern web standards- compliant web browser. All above is what has made web applications popular

a)   State and explain any five good reasons for companies to build web applications. (10 marks)

b)   Explain web application development process, which provides a good outline for a web application lifecycle process.   (10 marks)