



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (APPLIED PHYSICS AND TECHNOLOGY)

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

BACHELOR OF SCIENCE (COMPUTER SCIENCE)

SCO 207: WEB DEVELOPMENT TECHNOLOGIES

SIT 209: WEB DESIGN

DATE: 27/11/2020

TIME: 2.00-4.00 PM

INSTRUCTIONS

Answer question ONE and any other TWO questions.

QUESTION ONE (30 MARKS)

- a) Explain the significance of the following terms to the internet (5 marks)
- Browser
 - Web Server
 - Domain
 - IP
 - DNS
- b) Differentiate between
- Server side scripting technology and client side scripting technology (2 marks)
 - Asp and php (2 marks)
- c) Write a suitable HTML list code that would output the nested list as it appears below (6 marks)

A Nested List

- Coffee
- Tea
 - Black tea
 - Green tea
- Milk

- d) Describe the THREE ways of embedding CSs file into a html document (6 marks)
- e) Identify FIVE challenges faced by the society as a result of internet connectivity. (5 marks)
- f) Highlight the basic structure of a java script programme (4 marks)

QUESTION TWO (20 MARKS)

- a) Enumerate on the two tier and three tier client server architectures stating where each will be best suited. (8 marks)
- b) Discuss and illustrate appropriately the THREE types of client-severs interactions models. (9 marks)
- c) Highlight THREE benefits of client server interactions (3 marks)

QUESTION THREE (20 MARKS)

- a) List at least FIVE qualities of a good web designer and explain each of the qualities providing references of real life application to support the quality. (5 marks)
- b) Describe each of the following types of server (4 marks)
 - i. Web server
 - ii. DNS server
- c) Differentiate between the following:-
 - i. Thin and Fat clients (2 marks)
 - ii. Client and server scripting languages (2 marks)
- d) Explain and demonstrate the what should be in your webhosting checklist (5 marks)
- e) Give a hyperlink example for each of the protocols listed (2 marks)
 - i. HTTP
 - ii. HTTPS

QUESTION FOUR (20 MARKS)

- a) Define the term URL (2 marks)
- b) Using an example, state and explain the THREE major components of a URL. (3 marks)
- c) Describe the syntax of a well formed XML document (5 marks)
- d) Using an illustration explain, (5 marks)

If.....else if.....else statement

Syntax of Nested if else statement:
- e) Describe the benefits of outsourcing web development services (5 marks)

QUESTION FIVE (20 MARKS)

- a) Differentiate between XML and XHTML clearly stating application during web development. (4 marks)
- b) Briefly discuss the following internet protocols (6 marks)
 - i. ICMP
 - ii. RARP
 - iii. POP3
 - iv. SMTP
 - v. FTP
 - vi. BOOTP
- c) Discuss the advantages and disadvantages of client server architecture (10 marks)