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Faculty of computing library & information sciences
Department of Computer Science

End of Semester Examinations – December, 2023

PROGRAMME : BCS/BIT
PAPER : WEB DEVELOPEMENT
CODE : BCS1103
YEAR : ONE
DATE : 8TH DECEMBER 2023
TIME : 2:00 – 5:00 PM

Instructions

1. Attempt all questions in section A (40 marks) and Any Three (3) Questions from Section B (60 marks)
2. Do not open this exam until you are told to do so
3. All rough work should be in your answer booklet
4. Begin each question of Section B on a new page.
5. Number all the questions attempted, including the sections and subsections
6. Writing on the question paper is **STRICTLY PROHIBITED**
7. Any form of Examination Malpractice will lead to disciplinary action

SECTION A (Compulsory)

1. What is internet if full
a. Interconnected networks (1 marks)
b. International networks
2. _____ allows you to connect and login to a remote computer (1 marks)
a) Telnet
b) FTP

having their private conversations, data, information

- c) HTTP
- d) SMTP

(1 marks)

3. FTP is built on _____ architecture.

- a) Client-server
- b) P2P
- c) Data centric
- d) Service oriented

4. Which of these protocols and software program used to access remote computers and terminals over the Internet but encrypts data during the transfer and protects it from potential threat

(1 marks)

- a. SSH
- b. Telnet
- c. HTTP
- d. SFTP

5. Which of these protocols is a connectionless protocol

(1 marks)

- a. TCP
- b. UDP
- c. SFTP

6. What does TCP stand for?

(1 marks)

- a. Transfer Control Protocol
- b. Transmission Control Protocol
- c. Transfer Character Protocol
- d. Transmission Character Protocol

7. < body > Is this an opening tag or a closing tag?

(1 marks)

- a. Opening
- b. Closing

8. Which of the following protocols is used for retrieving and viewing HTML documents on the world wide web

(1 marks)

- a. HTTP
- b. HTTPs
- c. FTP
- d. TCP

9. Domain names identify a web page exact location T/ F (1 marks)

10. Which of these are requirements for an internet connection (1 marks)

- a. Browser
- b. Modem
- c. ISP
- d. File

11. is defined as private network of computers within an organization with its own server and firewall (1 marks)

- a. Internet
- b. Intranet
- c. Extranet

12. Which of these connections require users to link their phone line to a computer in order to access the Internet. (1 marks)

- a. Cable
- b. Dial up
- c. DSL
- d. ISDN

13. Which of the following are attributes of Font Tag? (1 marks)

- a. Font family
- b. Size
- c. Color
- d. All of above

14. Bandwidth means internet speed. T/F (1 marks)

15. Which of the following cables use light to transmit data over a cable (1 marks)

- a. Fiber
- b. Twisted pair
- c. Coaxial

16. In rural area satellite internet will be the best option for high-speed T/ F (1 marks)

17. Dynamic web page shows different information at different point of time
T/ F (1 marks)

18. Search engine is an application software that allows us to view and
explore information on the web T/F (1 marks)

19. Web CLIENT is a computer where the web content is stored. T/ F
(1 marks)

20. Browser refers to a computer program that searches documents,
especially on the World Wide Web, for a specified word or words and
provides a list of documents in which they are found T/F (1 marks)

21. How can we resize the image?

- a. Using resize attribute
- b. Using height and width
- c. Using size attribute
- d. Using rs attribute

22. What is the major function of the Transfer Control Protocol (2 marks)

23. Explain the TCP handshake (3 marks)

24. Why is the UDP sometimes called the fire and forget protocol

(2 marks)

25. Differentiate between a search engine and web browser (2 mark)

26. Explain the three major components of a search engine (3 marks)

27. Write HTML codes that will display the following outputs in a web
browser

(2 marks@)

- i. Kabale, on the 20th of June
will have no H₂O

- ii. Mask beats COVID19

(When a pointer is passed over COVID, should display CORONA
VIRUS)

28. Define the term bandwidth

(1 marks)

29. Point out any factors that affect internet speeds

(3 marks)

SECTION B (Attempt any three Questions from this Section)

Question one

- ✓ a) Differentiate between a **web page** and **web site** (2 marks)
- b) Differentiate between a static and **dynamic** web page (2 marks)
- c) Explain the difference between IPV4 and IPV6 explaining why we are shifting to IPV6 (3 marks)
- d) Vicent, a first student of BCS has been asked to contribute to the university site by coding his faculty's page. Vicent has been given the design below to reproduce in HTML. Write HTML code that Vicent will send to the university website development team (8 marks)



KABALE UNIVERSITY

Faculty of Computing, Library and Information Science

The Faculty of Computing, Library and Information Science, Kabale University was established on 1st July 2017. It is made up of two departments namely: -

- Department of Computer Science and Information Technology
- Department of Library and Information Science

2. Courses in computer science

- 1) BIT
- 2) BCS

Background color must be grey

Image is named logo.jpg

Question 2

- a) Briefly state the use of each of the following in HTML coding (2 marks@)
- a href
 - hr
 - nbsp;
- a) What new features can you embed in webpages using HTML5 vs using HTML (3 marks)
- b) CSS is one of the most widely used style language over the web. Explain any 3 applications of CSS (3 marks)
- c) Write HTML code that will create two web pages, a home page and about us page. Link these two pages. Populate the pages with some random data about an organization. Write code for a CSS page that will format the following things on these pages (8 marks)
- Paragraph color should be green and aligned to the left
 - A footer that has a background color white
 - The footer text should be red and aligned in the center

Question 3

- ✓ a) Explain the concept web crawling in relation to search engines (2 marks)
- b) Describe a ~~proxy~~ server giving any two of its purposes (3 marks)
- c) Write HTML code that will create the table below on a web page (8 marks)

NAME	SUBJECT	MARKS
Sonia Birija	Advanced Web	75
	Operating Systems	60
Muhwezi Marvin	Advanced Web	80
	Operating Systems	75
Total Average : 72.5		

- d) Website monetization refers to making money from the website. It is done by converting existing traffic to a particular website into revenue. Mention any 3 ways websites can be monetized (3 marks)
- e) What are the common mistakes made while creating webpages (2 marks)
- f) Explain the concept of extranet and intranet (2 marks)

Question 4

(2 marks@)

a) Describe the following internet connections

- i. Dialup
- ii. Cable Connection
- iii. DSL Broadband

b) **Website monetization** refers to making money from the website. Briefly explain any 3 models of making money from the internet. (4 marks)

c) Write HTML code that would create the form below

(10 marks)

KABALE REGISTRATION FORM

Name

Age

Sex Female ☐ Male ☒

Religion

Hobbies ☐ Sports ☐ Reading ☐ Music ☐ Others

Religion should be implemented as a drop down. A person can select more than one hobby.

Question five

- a) Explain the steps a DNS takes to return an IP address (5 marks)
- b) Explain the Concept and Importance of Document Object Model (4 marks)
- c) Apart from notepad, which other 3 tools can work as HTML Editors & Tools (3 marks)
- d) Write HTML code that would replicate the webpage below; (8 marks)

About

It can be intimidating for women to learn and ask questions when they are in an **extreme minority**. While open and welcoming, today's budding developer community is up to **91% male**. If we can empower more females with the confidence in their technological capabilities we can begin to change this landscape.

Our Locations

- USA
 - New York
 - Columbus
 - Austin
 - Philly
- World
 - Ottawa
 - Sydney

END