

## BINDURA UNIVERSITY OF SCIENCE EDUCATION

## FACULTY OF SCIENCE AND ENGINEERING

## DEPARTMENT OF COMPUTER SCIENCE

BSc HONOURS DEGREE IN COMPUTER SCIENCE (HBScCSc), INFORMATION TECHNOLOGY (HBScIT), SOFTWARE ENGINEERING (HBScSWE), NETWORK ENGINEERING (HBScNWE), PHYSICS (HBScPH) AND ENGINEERING.

## CS214/SWE214/NWE214: INTERNET AND WEB DESIGNING

DURATION: .....3 HOURS.....

TOTAL MARKS: ...100.....

## INSTRUCTIONS TO CANDIDATES

1. Answer all questions.
2. Use the answer booklet for section A questions and the computer for section B.
3. Create a folder on the desktop named as <your registration number.course code e.g b01234567.CS214>

SECTION A (40 MARKS)

## Question 1

- a. State the role of the following in Web Designing: [5]
- i. HTML.
  - ii. CSS.
  - iii. JavaScript.
  - iv. PHP.
  - v. MySQL.
- b. The terms Internet and World Wide Web are frequently used as if they are the same, define each term making the distinction clear. [4]

- c. Explain why two different search engines may return different results when given the same search terms. [2]
- d. Define session hijacking and explain how it can be combated. [6]

### Question 2

- a. Explain the main reason for the introduction of IPv6. [4]
- b. Explain the role of DNS in the operation of the Internet. [6]
- c. Given the IP address 200.99.44.0, determine the number of hosts possible on the network. [show your workings] [3]

### Question 3

- a. In relation to Cascading Style Sheets (CSS), briefly state what each of the following terms refer to:
  - i. Selector.
  - ii. Property.
  - iii. Value.
  - iv. Id.
  - v. Class. [5 ]
- b. Explain any two advantages of using cascading style sheets. [4]
- c. Beside the use of cascading style sheets, give any other way of managing content layout. [1]

## SECTION B (60 MARKS)

### Question 4

Farai Gumbo, a laboratory technician requires an online Chemical inventory application. He gives you the following design in figure1 for a form to capture chemical details.

*Chemical inventory form*

Name of Chemical	<input type="text"/>
Quantity	<input type="text"/>
Expiry Date	<input type="text"/>
Status	sealed <input type="radio"/> opened <input type="radio"/>
Manufacturer	<input type="text"/>
E-mail address	<input type="text"/>
<input type="button" value="Submit"/>	

Figure 1: Chemical Inventory Form

- Design the form and validated all the fields using JavaScript. [15]
- Design a MySQL database with an appropriate file to keep the details of the form. [5]
- Design a web interface that links to the designed form and as well to another page that displays all the contents of the database file in a table. [15]

#### Question 5

Create a dynamic web site for Maguta Farm located in Matepatepa in the Mashonaland Central province of Zimbabwe. The farm wanted to market its produce online and link with its stakeholders since it diversified its operations to include bee keeping (honey productions) and fruit production among crop and meet production. The manager

prefers the following design in figure2 for their main page and the database to be called Maguta. [25]

Basic information and adverts	
Links And downloads	Main page

Figure 2 : Maguta Farm Web Design Template.

\*\*\*\*\*END OF PAPER\*\*\*\*\*