CHUKA **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DIPLOMA IN

COMPUTER SCIENCE

COSC 0141: INTRODUCTION TO WEB BASED PROGRAMMING
STREAMS: DIP. COMP SCI.   **TIME: 2 HOURS**

DAY/DATE : FRIDAY 6/12/2019   **2.30 P.M – 4.30 P.M**

INSTRUCTIONS:

- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, no reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.

SECTION A

QUESTION ONE (30 MARKS)

a) Explain what you understand by the term internet protocol?   [2Marks]

b) Discuss the difference between a server and a host?   [4Marks]

c) Define the following terms as used in Web programming.

   i.   Data   [2Marks]

   ii. Database   [2Marks]

   iii. Open Database Connectivity   [2Marks]

   iv. Variable   [2Marks]

d) GIVE **THREE** differences between Client Server Computing and Peer to Peer Computing   [6Marks]

e) Who is a web administrator and what is web administration?   [4Marks]

f) With an example show how one can include JavaScript in HTML.   [4Marks]

g) Illustrate what a function is in JavaScript?   [2Marks]

SECTION B

QUESTION TWO (20 MARKS)

a) Write down the basic structure of a HTML page with a JavaScript code that pops up when the page loads. [10Marks]

b) The internet has many advantages and many applications have been developed that utilize this vast network. STATE and EXPLAIN some of the applications of the internet. [10Marks]

QUESTION THREE (20 MARKS)

a) Using an example show how you can create a table in a MySQL database [5Marks]

b) Write a CSS class that is called in a HTML paragraph. [5Marks]

c) Show a Simple Active Server Page Displays the Date and Time. [5Marks]

d) State **FIVE** internet protocols used today. [5Marks]

QUESTION FOUR (20 MARKS)

a) Write a PhP Mpesa code that blocks a user who enters the wrong pin more than three times and sends cash to a recipient if the pin is correct [12Marks]

b) Explain **FOUR** web security challenges that most applications face today. [8Marks]

QUESTION FIVE (20 MARKS)

You are the Lead developer at Jamo Kenya a leading E-Commerce company in the region. Recently there have been complains that the website is slow, when users select an item, two or three items are added in the cart instead of one. There are some user who also claim they got orders of items they didn't order. The team suspects this is as a result of a compromise in the server.

(a) State and explain five components that could have occurred in the server. [10 marks]

(b) Explain what steps you would take to solve the complains brought forward, mitigate the systems errors and prevent future related problems from occurring. [10Marks]

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