

CHUKA



UNIVERSITY

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UNIVERSITY EXAMINATIONS

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD OF  
BACHELOR OF SCIENCE COMPUTER SCIENCE

COMP 408: WEB DESIGN AND DEVELOPMENT

STREAMS: BSC. COMPUTER SCIENCE

TIME: 2 HOURS

DAY/DATE: THURSDAY 06/12/2018

8.30 A.M – 10. 30 P.M

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**INSTRUCTIONS:**

- Answer Question **ONE** and any other **TWO** questions.
- Diagrams should be used whenever they are relevant to support an answer.
- Sketch maps and diagrams may be used whenever they help to illustrate your answer
- 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**

**ANSWER ALL THE QUESTIONS IN THIS SECTION**

**QUESTION ONE [30 MARKS]**

- a) Explain the following web terms:
- i. Hypertext [2 Marks]
  - ii. Domain name [2 Marks]
- b) Differentiate between:
- i. Internet and WWW [2 Marks]
  - ii. Backend and frontend development [2 Marks]
- c) List and describe any three computer servers that are useful in web design and development [6 Marks]

- d) Write a php program that displays the string “PHP Programming” [3 Marks]
- e) Write the HTML code to display the following:
- i. 1/4 [1 Mark]
  - ii. % [1 Mark]
  - iii. < [1 Mark]
  - iv. & [1 Mark]
- f) Write the HTML code to produce the following segment. [4 Marks]
- **Meru**
  - **Tharaka Nithi**
    - i. **Chuka**
    - ii. **Kathwana**
  - **Embu**
- g) Justify the use of CMS in web design and development. Give an example of any one web design CMS. [3 Marks]
- h) Name any two PHP development frameworks. [2 Marks]

## SECTION B

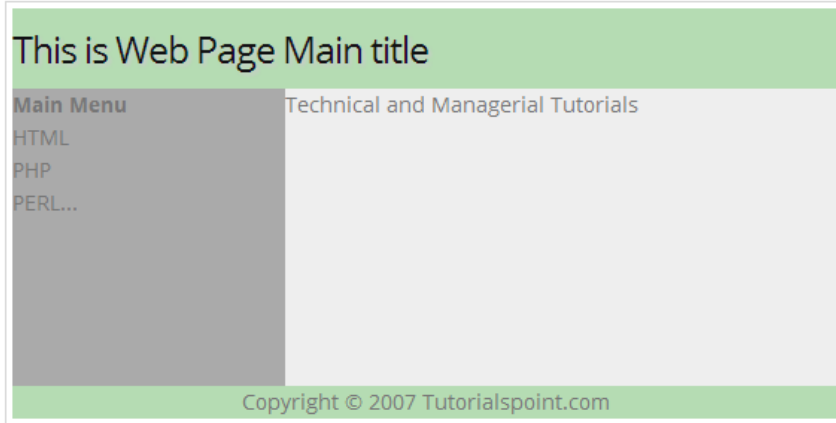
### ANSWER ANY TWO QUESTIONS FROM THIS SECTION

#### QUESTION TWO [20 MARKS]

- a) Giving suitable code examples, differentiate between While and Do....While loops in PHP programming. [8 Marks]
- b) Explain the difference between the <td> and <th> tags of HTML tables. [4 Marks]
- c) Explain any three uses of the ALT attribute of an image tag. [6 Marks]
- d) Highlight advantages of echo over print output methods in PHP. [2 Marks]

#### QUESTION THREE [20 MARKS]

- a) Write HTML code to reproduce the following structure. [8 Marks]



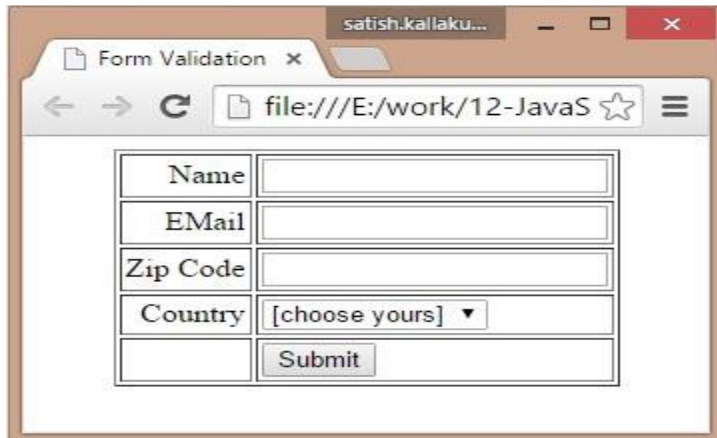
- b) Amina's basicSalary is Ksh. 30000 and her totalAllowances are Ksh.40000. Assuming her grossSalary is the sum of basicSalary and totalAllowances, write a PHP function to find the grossSalary. [8 Marks]
- c) Write the MySQL code to create a user namely admin with a password of adminpass on a server localhost. [4 Marks]

**QUESTION FOUR [20 MARKS]**

- a) A table tbStudents to store students' details is required. The table has fields RegNumber, FirstName, CAT and Exam. The RegNumber is the primary key. Write the MySQL code to:
- i. Create the table. [4 Marks]
  - ii. Populate the table with any two records. [2 Marks]
  - iii. Add a field LastName after FirstName. [2 Marks]
  - iv. Rename RegNumber to RegNo. [2 Marks]
  - v. View all records of the table. [2 Marks]
  - vi. Completely do away with the table and its contents. [2 Marks]
- d) Explain why XAMPP is important to you as a web designer and developer. [2 Marks]
- e) Write an inline CSS that ensures all H1 headings have font color red, of size 30 point and Georgia [4 Marks]

**QUESTION FIVE [20 MARKS]**

- a) Write the HTML code to reproduce this form [8 Marks]



The image shows a web browser window with a single tab titled "Form Validation". The address bar displays "file:///E:/work/12-JavaS". The form contains the following fields:

Name	<input type="text"/>
EMail	<input type="text"/>
Zip Code	<input type="text"/>
Country	[choose yours] ▼
	<input type="button" value="Submit"/>

- b) Write the PHP code that is executed when the Submit button is clicked. [8 Marks]
- c) Differentiate between websites and web applications. [4 Marks]
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