

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD OF
BACHELOR OF SCIENCE APPLIED COMPUTER SCIENCE**

COSC 326 WEB DESIGN, DEVELOPMENT AND ADMINISTRATION

STREAMS: BSC. COMPUTER SCIENCE

TIME: 2 HOURS

DAY/DATE: TUESDAY 11/12/2018

2.30 P.M – 4.30 P.M.

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) Differentiate between XAMPP and WAMP in web development. [4 Marks]
- b) Write a PHP program that displays a string “Hello World”. [3 Marks]
- c) Identify and describe any four data types used in MySQL. [4 Marks]
- d) Differentiate between web design and web development. [4 Marks]

- e) Highlight any two advantages of using MySQL as a DBMS. [2 Marks]
- f) Explain how to test if the Apache web server is started for web design and development. [2 Marks]
- g) List any five advantages of websites to an institution. [5 Marks]
- h) Giving examples, differentiate between Delete, Drop and Truncate as used in MySQL. [6 Marks]

SECTION B

ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO [20 MARKS]

- a) Students of COSC 326 have their details captured in a MySQL table named tbStudents. The table has fields (Reg_Number, First_Name, Last_Name and Age). Reg_Number is the primary key.
 - i. Show the MySQL code used to create the table. [4 Marks]
 - ii. Write the MySQL code to change name of field Last_Name to Sur_Name. [2 Marks]
 - iii. Rename table tbStudents to tbCOSC326. [2 Marks]
 - iv. Write code to introduce a field Middle_Name before Sur_Name. [2 Marks]

- b) A Login form is required for users to authenticate their details before access to a web application. The authorized user is admin with a password of adminpass. Successful authentication opens the web application's page home.php. By use of PHP code, develop the login application. [10 Marks]

QUESTION THREE [20 MARKS]

Employees of Organization XYZ have their payroll processed as follows:

Gross_Salary=Basic_Salary+Allowances

Net_Salary=Gross_Salary-Deductions

Deductions=PAYE+NSSF+NHIF

Allowances=House_Allowance+Medical_Allowance

PAYE=30% of Basic_Salary

- a) Design the HTML interface front end for the data capture by the user. [8 Marks]
- b) Write a PHP program for the salary processing. [12 Marks]

QUESTION FOUR [20 MARKS]

The following details are output depending on marks a student attains in an exam.

Marks	Grade	Comment
70-100	A	EXCELLENT
60-69	B	GOOD
50-59	C	FAIR
40-49	D	POOR
0-39	E	RETAKE

- a) Design the HTML interface for capturing the inputs by the user. [4 Marks]
- b) Write a PHP Switch...Case program that takes in Marks as an input then gives appropriate grade and comment. [8 Marks]
- c) Write a PHP If—Else conditional structure to input Marks then give an appropriate grade and comment. [8 Marks]

QUESTION FIVE [20 MARKS]

- a) Explain why we need functions in web programming. [4 Marks]
- b) Write a PHP function to find the area of a triangle. [8 Marks]
- c) A user admin with a password of admin123 is to be created in a MySQL server on the local machine.
 - i. Write MySQL code to create the user. [3 Marks]
 - ii. Assign all rights over all components of the server to the user. [3 Marks]
 - iii. Show MySQL code that could be used to completely remove the user account. [2 Marks]