

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS
RESIT/SPECIAL EXAMINATION**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
APPLIED COMPUTER SCIENCE**

ACSC 327: WEB PROGRAMMING AND ADMINISTRATION

STREAMS: BSC (APPLIED COMPUTER SCIENCE)

TIME: 2 HOURS

DAY/DATE: TUESDAY 02/02/2021

2.30 P.M – 4.30 P.M.

INSTRUCTIONS

- Answer Question **ONE** and any other **TWO** questions.
- 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 QUESTIONS IN THIS SECTION

QUESTION ONE [30 MARKS]

- a) Briefly describe each of the following image formats:
- | | |
|----------|-----------|
| i. Jpg | [2 Marks] |
| ii. Png | [2 Marks] |
| iii. Gif | [2 Marks] |
- b) An image mountain.jpg located in the web root of the website is 100 pixels wide and 100 pixels high. This image is to be used as a clickable link to open the webpage home.php. Write the html code to achieve this [5 Marks]
- c) Differentiate between echo and print in php [4 Marks]
- d) Write a php function that displays the string “Hello World” on the computer screen. Demonstrate a call to the function created [5 Marks]

- e) Giving example php code differentiate between variables and constants in programming [4 Marks]
- f) Identify and explain the heading tags available in html [3 Marks]
- g) Users of a developed web application have to register before using the application. Required details include Surname, First name, Date of Birth, Gender, Username and Password. Write html code to design the front end form used to capture these details [3 Marks]

SECTION B

ANSWER ANY 2 QUESTIONS FROM THIS SECTION

QUESTION TWO [20 MARKS]

- a) Differentiate between name and value attributes of a radio button [4 Marks]
- b) A MySQL table tbStudents has a field Course as one of its fields. Write the MySQL code to rename field Course to Unit [4 Marks]
- c) Design the following html table

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Student name	Registration number	CAT	Exam

[8 Marks]

- d) Explain social engineering as applies to hackers. Identify any common social engineering techniques that may be applied in the concept of websites and web applications [4 Marks]

QUESTION THREE [20 MARKS]

- a) Explain the role of <hr> in html [2 Marks]
- b) Identify the need for ALT attribute in web images [2 Marks]
- c) Reproduce the html code used to create the following segment: [6 Marks]

The following are degree courses offered at Chuka University:

 - a) BSc. Computer Science
 - b) BSc. Applied Computer Science
 - c) BCOM
 - d) And many others

Diploma courses include:

- Diploma Computer Science
- Diploma in Education
- Diploma in Early childhood education
- Etc.

d) Giving code examples describe cookies and sessions in php web programming [10 Marks]

QUESTION FOUR [20 MARKS]

- a) Before we can access data in the MySQL database, we need to be able to connect to the server. Write php MySQLi procedural code to connect to a MySQL server assuming username=username, password=password and machine name=localhost [6 Marks]
- b) Create a database dbRecords making reference to connection code in a) above [4 Marks]
- c) Discuss strengths of MySQL database management system (DBMS) compared to other DBMS [4 Marks]
- d) The following are special symbols in html. Write the html code used to produce them:

- i. ©
 - ii. ®
 - iii. €
- [6 Marks]

QUESTION FIVE [20 MARKS]

A Php program is used to process student performance. Marks are processed as follows:

Total CAT=CAT1+CAT2
Total Mark=TotalCAT + Exam.
Passmark is 40 Marks and above
Grading is done as follows:

Mark	Grade
70-100	A
60-69	B
50-59	C
40-49	D
0-39	E

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- a) Write a php program to process student performance using if conditional structures [10 Marks]
- b) Repeat a) above using switch statements [10 Marks]
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