



**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES**

**CIS301 DATABASE SYSTEMS**

**END OF SECOND SEMESTER EXAMINATIONS**

**APRIL/MAY 2021**

**LECTURER: MR MAGWAGWA**

**DURATION: 7 HRS**

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### ***INSTRUCTIONS***

You are required to answer question/s as instructed below:

When submitting your answers compress(zip) the practical and submit theoretical question as separate file in moodle

Submit an exported database to questions that use a database

Answer One( 1) questions

Credit will be awarded for logical, systematic and neat presentations

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### Question 1

Using a Server Scripting language of your choice, connect to a MySQL DBMS. Do the following operations:

- a) Create a database called *Central\_hospitaldb*
- b) Create two tables *tbl\_casualty*, *tbl\_maternity* and *tbl\_cardiovascular*
- c) The table should have the attributes listed:

<i>tbl_casualty</i>	<i>tbl_maternity</i>	<i>tbl_cardiovascular</i>
id(Auto increment)	id(Auto increment)	id(Auto increment)
firstname(Varchar 50)	firstname(Varchar 50)	firstname(Varchar 50)
lastname(Varchar 50)	lastname(Varchar 50)	lastname(Varchar 50)
email(Varchar60)	email(Varchar60)	email(Varchar60)
DateofAdmitted(Date)	DateofAdmitted(Date)	DateofAdmitted(Date)
DateofDischarge(Date)	DateofDischarge(Date)	DateofDischarge(Date)

- d) Create two HTML forms that save data in the two tables
- e) Using Server scripting and MySQL languages create a page that VIEWS what has been stored in *tbl\_casualty*, *tbl\_maternity* and *tbl\_cardiovascular* tables.
- f) Using Server scripting and MySQL languages create a page that DELETES what has been stored in *tbl\_casualty*, *tbl\_maternity* and *tbl\_cardiovascular* tables.
- g) Create a PHP and MySQL script that will update the records for all tables.
- h) Create a PHP and MySQL script that will retrieve all records on a single page
- i) Export your database to your machine
- j) Zip the database and the PHP files. Upload the Zip file to moodle.

**[100 Marks]**

### Question 2

You are a database administrator and you have been requested to generate a symposium paper that shows a research on how databases entities/elements relate to each other. The symposium paper should address the following

- a) An in-depth analysis of what we refer to as entities/elements
- b) How do we manage the elements/entities by the system/s that are available?

- c) The various modes that the database elements/entities relate to each other
- d) What determines the relationships of the database elements/entities in your paper **[100 Marks]**

### **Question 3**

As an expert in Database management, you have been approached by Africa University to discuss how they can setup a database that can cater for the needs of the Four(4) campuses. Generate a report to the ICT Director discussing the following:

- a) What types of databases are around and which one you will recommend for Africa University
- b) Discuss methods you will use to make sure that the content is not duplicated or incorrect at any point in time(use examples)
- c) Outline how you will make sure that it is easy to locate entities within the database
- d) Recommend the processes you will take to setup such a database **[100 Marks]**