



COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE
COURSE CODE: COURSE TITLE: CIS206 – INTERNET APPLICATION
DEVELOPMENT

END OF SECOND SEMESTER EXAMINATIONS

JANUARY/MAY 2020

LECTURER: MUKHALELA B

DURATION: 2 DAYS

INSTRUCTIONS

You will need a **Computer ONLY** for both answering and submission of this Examination.

Answer as **creative** as you can any **ONE** question **in essay format unless where stated.**

Credit will be awarded for logical, systematic and neat presentations.

All code snippet examples should be written in internet-fluent languages like html, css, js, sql, and php.

Upon submission, the file name to be attached on the course handle on Moodle should be your Reg number+ Course code eg **167756+CIS206.**

Question 1

You were told that every Internet based Application were supposed to abide by the offerings of the 3 Tier-architecture. This means the applications should be dynamic i.e. allowing end-users to directly interact with the backend servers,

Elaborate in an essay how you would use the 3-tier architecture offerings in coming up with dynamic internet Applications. Use internet fluent languages' code snippets as examples in your illustrations. [100]

Question 2

During a debate, on which technology to use so as to enhance consistency on an Internet Application which your team had just developed, some were arguing the team adopt use of HTML5 to beautify the look and feel of the App while some were arguing the team adopts use of JavaScripts.

In a detailed essay argue for and against use of each of these technologies when it comes to maintaining consistency of the look and feel of an Internet Application. Use code snippets to reinforce a point. [100]

Question 3

Hint: Use the installed **ArgoUML or Visio or Paint or any drawing App** environments on your own computer. Make sure to first save all your files for this question and attach the special file ready for submission.

A hospital has several units which does a lot of business operations manually and very decentralized for individual units. Having just joined it as a Trainee Enterprise Application Developer, you senior assigned you to be responsible for the development of the central database for the ERP. He told you to listen, record and analyses the story below which a long term user of the old system to be replaced had to say.

We have the Doctors who are booked by Out-Patients and those admitted in our own wards, to perform an Operation. Nurses on duty will assist both Doctors and patients alike. Our wards are divided into four that is Maternity, Infants, MiddleAged and Aged. Drugs are usually prescribed by a Doctor and administered on patients by Nurse(s). The Pharmacists keep track of all drugs received from Suppliers and dispatch of such to patients depending on each patient's treatment prescribed. The finance unit pays for all drug acquisitions including administering sales from patients and payments to staff.

Required.

Design a detailed ERD for the proposed ERP's Hospital Module as given in the Case-Study above. Use either Crow's Foot or Cheng's notation. Creativity on inclusion of other entities and relationships shall earn you more marks.

Also include a write-up on the following on how they are reflected in your design:

-Multiplicity ratio

-Referential integrity

-Weak-Entity.

- Super Key

[100]