



COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NCIS 407 - ENTERPRISE ARCHITECTURE

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2022

LECTURER: MUKHALELA B

DURATION: 3 HOURS

INSTRUCTIONS

You will need both an **Answer Booklet**

Answer questions **as** instructed in **each section**.

The marks allocated to **each** question are shown at the end of the section.

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

Section A [50 marks]

Instructions

- Attempt **Any 2** questions in this section using Answer Booklets provided.
- Start **each** question on a new page.
- The number of marks (Score) for each Sub-Question is indicated at the end of it using Square brackets [].

Question 1

- Describe the steps that are taken in system Integration. What are the key benefits of integration? [15]
- If you had a choice between customizing an ERP application to meet the organization processes and modifying organization processes to meet the ERP functionality, which would you choose? Explain using real-life examples. [10]

Question 2

- Identify the current ERP vendors on the market today and briefly explain what each vendor's system is targeting on the market. [13]
- During an ICT Conference you attended to, you heard a Senior ERP-Architect saying, *"Common database and business processes lead to more trustworthy demand forecast. Again the comprehensive account planning tool is a merit too."* Soon after the above quote, Former Nestlé CIO Jeri Dunn says, *"No major software implementation is really about the software. You are challenging their principles, their beliefs and the way have done things for many many years."*

Required:

- Name and discuss the Architecture's demerits which was being referred to as 'Common database' [6]
- Referring to the former CIO of Nestlé, outline how the challenges were overcome. [6]

Question 3

- Explain briefly the following concepts to do with Best Practices of Implementing the AU's Acacia ERP as studied during the course project:
 - Change management, [8]
 - Business strategies aligned with Business Processes, [8]
 - Extensive Education and Training. [8]

b) Write the full meaning for the abbreviation LIS.

[1]

Section B [50 marks] use Exam Answer booklet

Question 3

Hint: Use the installed **XAMPP** and **Sublime** or **Notepad ++** environments on the allocated computer. Make sure to first save all your files for this question in the **htdocs** of your allocated computer. Then after all developments copy the **htdocs** into the folder that you created on your desktop ready for submission.

Imagine Africa University has just hired you as a Graduate Enterprise App Developer to give its proposed new ERP-dubbed the Academia a new face. You have been tasked to design and implement a Library module for the Academia ERP.

- a) Develop a database called ***AU_Library.sql*** using either the MySQL's SQL Command or [08]
- b) Design and implement a form's GUI that will allow a Librarian on duty to add new books in the just created database. Name the code for the form as ***Librarian_New_Book_Entry_Form.html*** and save it in your **htdocs** folder for both implementation and submission. [05]
- c) To enable the above developed form to send collected data to the database server developed in 3(a) above, a Business logic script (server-side) to do just this. Code a php server-side script to send the collected data on the form to the database. The server should send back responses to the presentation tier Name the script as ***Librarian_Book_Entry_Form_Processing.php***. [12]

Question 4

Hint: Use the installed **MySQL workbench** and **ArgoUML** environments on the allocated computer. Make sure to first save all your files for this question in the folder that you created on your desktop ready for submission.

Required.

- a) Design a detailed ERD for the proposed ERP's Library_Module as given in the Case-Study above. [12.5]
- b) As an Analyst in the team, you have been asked to draw a Use-Case diagram that would complement the documentation for the entire system. [12.5]

Question 5

Hint: Use the installed **XAMPP and or Sublime or Notepad ++** environments on the allocated computer. Make sure to first save all your files for this question in the folder that you created on your desktop ready for submission.

Using the MySQL portion of the MyPhp Admin dashboard of your XAMPP server, create any arbitrary database with a minimum of 5 tables or entities. Enter any relevant data into the tables and run one query that includes each of the following from the database:

- i- Selection
- ii- Union Join
- iii- Cartesian Product
- iv- Right-Outer Join
- v- Left-Outer Join.

[25]