COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NCIS403: WEB APPLICATION DEVELOPMENT
END OF SECOND SEMESTER EXAMINATION

APRIL 2023
LECTURER: MR MUKHALELA

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. The marks for each question are indicated in square **[]** brackets.
2. Answer All Question in Section A and any one (1) in Section B.
3. Use Allocated Lab Computer for your Section A and use an Exam provided Answer booklet for Section B.
4. Creativity shall earn you more credit.

Section A Complusory

Question 1

Imaging you have just joined ZINARA as a Web Architect and your immediate task was to design and develop a database driven Web page for the Vehicle Inspection Department to assist management of Learners' Drivers track the issuance of Temporary and Competence Driving certificates with the help of registered Driving Schools.

Your task is to break down the project as follows:

(a) Design a basic index page to include basic **css** and interactive on it. [10]

(b) Design an appealing HTML5 based form that will capture the basic data as per the above mini description of the systems intentions. Use provided images [15]

(c) Develop a persistent storage using MySQL engine in the provided CASE tool for this exam. [15]

(d) Code a business logic server-based script that would allow Administrators to do the following:

  i- Add a new record via the form designed in (a) above. [5]

  ii- Retrieve a portion or all the records entered into the persistent engine via a web browser. [5]

NB: Your creativity shall earn your more credit on any of the sub-sections of Question 1

Section B

Question 2

Having attended to a CMS conference on behalf of your Senior Web Architect, he or she has asked you to write a summary report that shall address whether or not your company should adopt use of a CMS in its web development projects. Be elaborate in your report. [25]

Question 3

Search engine Optimization and Load Balancing are essential for most database driven web services, critically analyse this statement, spelling out the merits and demerits of each to an organisation. [25]

<p align="center">**END OF EXAMINATION**</p>