COLLEGE OF ENGINEERING AND APPLIED SCIENCES

NCIS211 – WEB TECHNOLOGIES

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2023

LECTURER: MR B. MUKHALELA

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. This paper carries **6** questions.
2. Answer **ALL** questions from **Section A (Practical using a Lab allocated computer)**.Save your work in a Zipped folder on the Desktop, folder name should be your **Student ID**.
3. Answer any **3(three)** from **section B** questions **use Exam provided Answer booklet in the section.**
4. Each question carries **25 marks**.
5. The marks for each question are indicated in square **[]** brackets.

Section A-Compulsory

Mini-project

Question One

Design an ERD for a hospital that you have just joined as a Web technologist. Include the following entities: Doctor, Ward, Patient, Drug, Bed and other entities of your choice. **(25)**

Section B

Question Two

    a. Write code snippet for a php script that indicate variables to connect to a MySQL database. Include the method you can use to connect to the database.   **(10)**

    b. Write an SQL statement for creating a new table called Lecturer and include both data type and other constraints, include only 4 columns on the table.   **(10)**

    c. Write down the meanings of the following abbreviations as used in Web Technologies:
- DNS
- AWS
- DHCP
- JSOON
- XML   **(5)**

Question Three

Server-side scripting can be done using any of the following technologies;

- Python
- JSP
- ASP.Net and
- AJAX etc

Using any one of the technologies of your choice, write brief notes and code snippets on how the chosen technology is used to connect a form to a   database server.   **(25)**

Question Four

    a. From Question one above, identify any one entity which you shall code an html form for, be creative.   **(15)**

    b. Write html code snippets for an ordered list to be included in you web application, you have been told that the list should have 5 items and each should be centered, bold and italiced upon display.   **(5)**

    c. Using html code snippet, show how you will put a picture on a website.   **(5)**

Question Five

Describe the three-tie-architecture as used in modern dynamic web technologies. **(25)**

Question Six
   a. Explain the usefulness of XML in Web technologies, illustrate using xml code. **(10)**
   b. React is a highly useful web technology in today's web driven undertakings, citing examples illustrate how a modern organization can manipulate React as web technologies framework. **(15)**

End of Examination