COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NCIS 102: MICROCOMPUTER APPLICATIONS

END OF SECOND SEMESTER EXAMINATION

APRIL 2023

LECTURER: MR MUKHALELA B.U

DURATION: 3 HOURS

INSTRUCTIONS TO CANDIDATES

1. This paper carries **4** questions.
2. Answer **All** Questions **Practically using a Lab allocated computer),** Save your Answer in a single folder on your desktop, the folder should be named in your Student ID + Course code eg 2022567NCIS102
3. Each question carries 25 marks.
4. The marks for each question are indicated in square [] brackets.
5. Exam Source file contains files you will use as required in the exam. Such include; images, pre-typed text etc.

Question 1- Website development using HTML basics   **[25 Marks]**

Using HTML tags, design a generic **Home page** for your organisation that is into Agri-Business venture. Your home page should have the following minimum items; creativity will earn you more credit;

- Image(s), headings, lists, href, breaks, paragraphs etc
- Appealing or realistic Background (one that abides by minimum design principles)
- Social media handles like Twitter, Facebook, LinkedIn,etc
- About Us Tab (with your company's contact details).
- Sales Catalogue (with prices and product image)

NB: Answers to Questions 2, 3 and 4 should be accessed as **links** in the Footer section of your proposed website index page.
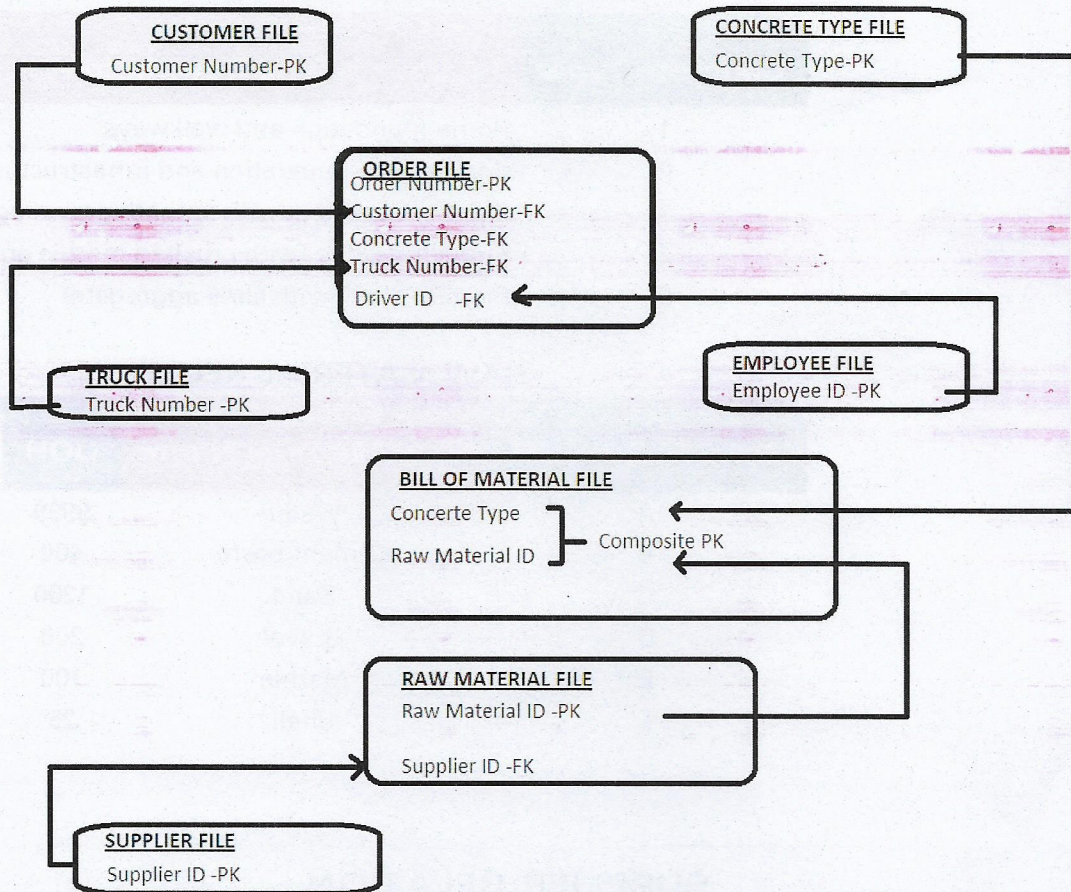
Question 2 – Databases using MS Access.   **[25 marks]**

a) Imagine you have just been hired at Solomon Enterprises as an Assistant Administrator. Apparently, the organisation has expanded into construction and are targeting the supply of pre-mixed concrete to their clients around their catchment area. You have suggested the use of a database so as to track proceedings in the new venture and your senior Administrator has approved the proposal including implementation of the Mini ERD that you suggested shown below. Using the below Mini ERD showing the logical ties between the Primary Keys and Foreign Keys of the Solomon Enterprise database, implement the full database using MS Access as indicated below the Mini ERD. NB: Include all other relevant Attributes other than the shown PKs and FKs.   (15 marks)

Solomon Enterprises Primary and Foreign Key Logical Ties (Mini ERD)

CUSTOMER FILE
Customer Number-PK

CONCRETE TYPE FILE
Concrete Type-PK

ORDER FILE
Order Number-PK
Customer Number-FK
Concrete Type-FK
Truck Number-FK
Driver ID   -FK

TRUCK FILE
Truck Number -PK

EMPLOYEE FILE
Employee ID -PK

BILL OF MATERIAL FILE
Concerte Type
Raw Material ID   Composite PK

RAW MATERIAL FILE
Raw Material ID -PK

Supplier ID -FK

SUPPLIER FILE
Supplier ID -PK

(i)   Enter the following details into the tables: (5 marks)

CONCRETE TYPE RELATION

Concrete Type	Type Description
1	Home foundation and walkways
2	Commercial foundation and infrastructure
3	Premier speckled (with smooth gravel aggregate)
4	Premier marble (with crushed marble aggregate)
5	Premier shell (with shell aggregate)

RAW MATERIAL RELATION

Raw Material ID	Raw Material Name	QOH	Supplier ID
A	Water	9999	999
B	Cement paste	400	412
C	Sand	1200	444
D	Gravel	200	444
E	Marble	100	499
F	Shell	25	499

SUPPLIER RELATION

Supplier ID	Supplier Name
412	Wesley Enterprises
499	A&J Brothers
444	Juniper Sand & Gravel
999	N/A

BILL OF MATERIAL RELATION

Concrete Type	Raw Material ID	Unit
1	B	1
1	C	2
1	A	1.5
2	B	1
2	C	2
2	A	1
3	B	1
3	C	2
3	A	1.5
3	D	3
4	B	1
4	C	2
4	A	1.5
4	E	2
5	B	1
5	C	2
5	A	1.5
5	F	1.5

(ii)   Using a cross tab query, show what are the ingredients for Premier marble concrete? Write a Query to show how many units of each raw material   are in concrete type 4. Print out the name of the concrete type, it's ID, the name of the raw material (not its ID), and the number of units of each of the raw materials.   (2.5 marks)

(iii)   Inventory Report. Create a report that shows how many units Solomon Enterprises has of each of the raw materials. Don't include water (hint: you want all Raw Material fields that do not equal water). Choose your own layout and page orientation.   (2.5 marks)

Question 3 - Word Processing using MS Word.   **[25 marks]**

You have just joined Diamond FM as an assistant News Compiler where you have been asked to design the front page of the Manica Post newspaper. Your newspaper Front page should at least include the following elements:

* Drop Case
* Use Columns
* Include some Borders for one of the stories on the front page

- Some pictures relating to some headlines on the front page,
- Social media links
- Price tag
- Special characters
- Other creative items shall be rewarded for producing a miniature of a Newspaper Font page.

Question 4 Spreadsheets using MS Excel.   **[25 Marks]**

As a Financial Analyst, you have decided to use MS Excel to assist in decision making at a Real Estate's business dealings. Given the data in file called customers own or rent, do the following:

(i)   Show all information for only customers who live in the North region.

(ii)   Show all information for only customers who :

       (a) live in the North region,

       (b) own their homes, and

       (c) have only one household member.

(iii)   Show all information for customers who have at least 4 household members.

(iii)   Show all information for customers who:

    a. have spent less than $20 or

    b. more than $100.

(iv)   Show all information for all customers highlighting those customers who have spent more than $100.

(v)   Provide a two-dimensional table that counts the number of customers by the categories of REGION and RENT VS. OWN.

(vi)   Provide a two-dimensional table that both:

    a. counts the number of customers and

    b. sums the TOTAL PURCHASES of customers by the categories of REGION and RENT VS. OWN.

(vii)   Provide a three-dimensional table that counts the number of customers by the Categories of REGION, RENT VS. OWN, and NUM HOUSEHOLD.

End of Examination