DEPARTMENT OF COMPUTER SCIENCE
FIRST SEMESTER EXAMINATION 2023/2024 SESSION

OURSE TITLE: INTRO. TO COMPUTER PROGRAMMING
OURSE CODE: COM 113 **UNIT: 3 Hours**
LASS: COMP. SCI. ND I **(FT &PT)** **TIME ALLOTTED:** 3HRS

NSTRUCTION: 1. Attempt **ANY FOUR Questions** in SECTION A & **ONE Question** from SECTION B
2. Write only your matric number on the question paper, nothing else.

SECTION A

1(a) Language processor, often called translator, belongs to which category of Software? Hence discuss in detail the three types of language processors known to you (10marks)

(b) What is: (i) Computer Programming? (ii) Programming Language? (5marks)

(c) Enumerate five (5) attributes of a good program. (5marks)

2(a) Like other real-life problems to be solved, software development requires systematic procedure to be followed to produce a professional software product that will meet users' need or expectations. Enumerate and briefly describe these procedures to justify your knowledge on software development. (12marks)

(b) Function, constructs, expressive power and target are traits often considered important for constituting a programming language. Explain. (8marks)

3(a) What is Algorithm? Hence itemize and give brief explanation on at least four (4) kinds of notations through which algorithms can be expressed. (10marks)

(b) Differentiate between *Syntax* and *semantics* as terminologies within the context of computer programming. Hence list five (5) syntactic errors that can hinder a program from running. (10marks)

4(a) What is Control Structure (CS) within the context of computer programming? (3marks)

(b) Apart from sequential CS by default, identify other two (2) CS and describe their purposes in programming. (7marks)

(c) What do you understand by programming bugs? Hence differentiate between debugging and maintenance (10marks)

5(a) In not more than three lines for each of the underlisted programming paradigms, justify your understanding on them all: (i) Structured Programming (ii) Modular Programming (iii) Interactive Programming (iv) Graphical User Interface (GUI) (v) Object-oriented Programming (OOP). (10marks)

(b) Briefly describe the usefulness of the following tools in software development:

(i) Flowcharting (ii) Decision table (iii) Data flow diagram (iv) Data dictionary

(v) Pseudo code (10r

SECTION B

QUESTION 1

A. Develop an algorithm and its respective flowchart to calculate the average score of three (3) scores. Display EXCELLENT if the average score is 75 and above, GOOD if less than 75 but not less than 40 and display FAIL if less than 40.

(12marks)

B. Write a QBASIC program to calculate the factorial of any integer number (8marks)

QUESTION 2

A. List five QBASIC keywords you know and explain them (5marks)

B. Draw and briefly explain three (3) flowchart symbols you know (3marks)

C. A company pays commission to its customers based upon the number of goods supplied. Any customer who ordered less than 2000 cartoons receive N80 per cartoon and those customers that ordered up to 2000 or more receive additional N10 per carton on the extra cartoon ordered. Write Basic program to input the number of cartons supplied and the total commission to be paid to the customer.

(12marks)