ELIZADE UNIVERSITY

ILARA-MOKIN

FACULTY: BASIC AND APPLIED SCIENCES
DEPARTMENT: MATHEMATICS AND COMPUTER SCIENCE
1st **SEMESTER EXAMINATION**
2019 / 2020 **ACADEMIC SESSION**

COURSE CODE: CSC 101

COURSE TITLE: Introduction to Computer Science

COURSE LEADER(s): Dr. Bukola Onyekwelu/Mr. O. Babalola

DURATION: 2 Hours

HOD's SIGNATURE

INSTRUCTION:

Answer 4 questions in all, at least one question from each section

Section A

Question 1

COVID-19, the novel Coronavirus is crossing borders. The **EPIDETECH** research group of Elizade University is currently building robot health care personnel to serve as a frontline worker to screen people for contagious diseases. The robot is code named "Ameyo" in honour of Nigeria's legendary Ebola whistleblower doctor.

Your task is to analyze this robot using everything you learnt in the Group A part of this course tagged "Introduction to computers".

For instance,

1. Computer generations;

Ameyo is a 5th generation computing agent because it is an A.I based system.

You are to mention at least 15 other computing concepts and relate it to this robot.

Question 2

a. Mention 20 hardware devices and categorize them into at least 4 classes.
b. Explain the information processing cycle using examples.
c. What are computer generations? Describe the generations of computers with a clear distinction of hardware and software.
d. Mention 15 different software applications and categorize them into at least 3 classes.

Section B

Question 1

a. Define the following concepts: Variable, Data Type, Debugging, Machine Dependency.
b. List and Explain the steps involved in developing a visual basic application.
c. Write a simple VB program that accepts inputs of needed variables to calculate simple interest. Given that S.I = (P.R.T)/100

Question 2.

a. Define the following concepts: Syntax Error, Semantic Error, Machine Independency, Keywords.
b. In a tabular form, state 3 differences between a software and a program
c. Write a simple VB program that accepts a user's weight and height and computes the user's BMI. Given that BMI = weight/height^2

Section C

Question 1

a. Operating systems can be classified / categorized based on two different conditions and perspectives. List them, and describe all the types under each category.

b. What is "Turnaround time"?

c. With the aid of well-labelled diagrams, show the difference between Peer-to-Peer Network and Clent-Server Network.

Question 2

a. What are the major responsibilities of the Kernel?

b. Using a Table, list the comparison between Monolithic Kernel and Microkernel.

c. Explain the Hybrid Kernel approach.