FACULTY: BASIC AND APPLIED SCIENCES
DEPARTMENT: MATHEMATICS AND COMPUTER SCIENCE
1st **SEMESTER EXAMINATION**
2020 / 2021 **ACADEMIC SESSION**

COURSE CODE: CSC201
DURATION: 2.5 Hours
COURSE LEADER: Mr. O. Babalola
DURATION: 2.5 Hours

HOD's SIGNATURE

INSTRUCTION:
Students are warned that possession of any unauthorized materials in an examination is a serious assessment offence.

Candidates should answer any **THREE** Questions. **Question 5 is compulsory.** Use examples as necessary; this will show your understanding of the underlying concepts. You must also understand that marks will be awarded for coverage therefore write all the key points as necessary.

1. XYZ is an aspiring intern at Software Park. He wrote this Python 3 program in the interview. You are invited to the panel to rank him. Critique (describe, analyze, interpret and assess) the program for its good and its bad side.

```
Def CircleArea(x)
x = "Input the reading"
y = x²
z = 3.14 x y
Point (z)


CircleArea ()
```

What do you understand by 'coding'?

[Going Higher]

What are high level programming languages?
List various types of operators in Python and produce the operator precedence table for Python operators.

2. What is 4IR? Connect your acquiring programming knowledge with the 4IR.
Mention 3 websites and 3 books related to CSC201 and state why they are valuable resources.
What is the course title for CSC201 and how many units is the course?
What part of Python do you love most? Show that part with an example in a program not less than 15 lines.

3. List 10 areas where Python is applied (i.e make a list of what Python is used for) and explain in detail one of the areas mentioned.
Explain IPO and how it applies to programming.
Explain the 3 forms of program constructs that are commonly found in computer programs.
What is a Pseudocode? An algorithm? A flowchart? A snippet?
What is the difference between an algorithm, a pseudocode, and a code snippet?
List and explain the various ways to write and run a Python program.
Mention one software company in Nigeria.

4. What is the difference between a function and a method?
What are classes?
What are objects?
What is a block?
What is variable scope?
Use an example to explain each of the above.

5. Playground - alternative to practical (Compulsory, 30 marks)

Use the remaining pages in your booklet to write various Python programs of your choice (You are expected to write not less than 4 programs). **You're expected to use all the different Python programming features you learnt this semester including exceptions.**

Marks will be awarded for:
A. Uniqueness (5 marks), i.e. how creative you are with the problems you chose to solve
B. Neatness (3 marks)
C. Syntax correctness (10 marks)
D. Elegance, comprehensiveness and usage of advanced approaches (12 marks)