CROSS RIVER UNIVERSITY OF TECHNOLOGY, CALABAR
DEPARTMENT OF COMPUTER SCIENCE
FIRST SEMESTER EXAMINATIONS 2012/2013 SESSION

COURSE CODE: CSC 2101
COURSE TITLE: COMPUTER PROGRAMMING I **TIME: 2HRS**
INSTRUCTION: Answer question 1 and any other three

1. Write a program using either BASIC or Pascal, involving two modules, where one of them sends output to the active printer, while the second one sends output to the screen. The user is expected to select which of the modules to execute at a time. More so, the program does not terminate until the user chooses to do so. The program receives students name, registration number and the scores in three subjects. The program them calculates the average of the scores, and displays all the inputs as well as the average score.

2. State an algorithm, flowchart and write a program that will receive three integer numbers from a user and pick the largest of those numbers. The program should be written in any of these three programming languages: Java, BASIC and Pascal.

3a. Java technology contains both compiler and interpreter. What is the essence of combining two translators in one programming language?

b. Write a Java program to convert an amount given in Dollars to Naira
NOTE: One Dollar is equivalent to 156 Naira

4a. Explain the concept of garbage collection in Java technology. When does it occur in a Java program.

b. Write a Java program that receives the value representing the three sides of a triangle and determine whether the triangle is equilateral or not.

5a What is a data structure? List and describe the features of four data structures used in programming.

b. Write a Java program to calculate and display the "sum of the squares" of all the numbers from 1 to 10 automatically on the screen, i.e 1*1+2*2+3*3+…….10*10.
NOTE: The values are not to be received from the user.

6a. Rewrite the following mathematical formulas as programming expressions:

(i) $J = uv + {}^{1}/_{2gt^2}$ (ii) $y = \frac{5}{c+5} + \frac{3d}{4-c}$

(iii) $K = \frac{A}{B/3} + 6B$ (iv) $x = \frac{-b+\sqrt{b-4ac}}{2a}$

b. It is not sufficient that a program is seen to be running. The program should be written in good style. Discuss the features of a program written in good style.

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SECOND SEMESTER EXAMINATIONS 2017/2018 SESSION

COURSE CODE: CSC 2101
COURSE TITLE: INTRODUCTION TO PROGRAMMING USING BASIC **TIME: 2HRS**
INSTRUCTION: Answer all question section A and any 3 section B

1. Write the syntax for WHILE……WEND
2. What happen when you the run the code below

```
10 REM EXAMPLE OF GOTO STATEMENT 2
20 PRINT "HIV is real and abstinence is the solution"
30 GOTO 20
40 END
```

Use the following program segment to answer Questions 3 and 4.

```
        IF Time<Best THEN
PRINT "NEW WORLD RECORD"
        ELSELF Time<Best + 10 THEN
PRINT "GOOD RACE"
ELSE
        PRINT "AVERAGE RACE"
END IF
```

3. If Time equals 130 and Best equals 120, what is output when this statement is executed?
4. If Time equals 120 and Best equals 121, what is output when this statement is executed?
5. How do you draw pixels in QBasic
6. ____ statements allow the programmer to change the flow of program execution.
7. The last statement in a block IF is always _____
8. What occurs if the first statement after a block IF statement is nonexecutable, such as a REM statement?
9. If X = 22 when the following statement is executed _____

```
        IF X < 8 THEN
PRINT "Stop program"
```

10. The block IF statement uses relational operators to compare.

SECTION B

Question One

a. Write a program to input student's name, marks obtained in four difference subjects, find the total and average marks.
b. Describe the process of drawing any important shape QBASIC
c. Describe briefly four (4) basic types of instruction use in QBASIC programming

Question Two

a. Write a program to enter any alphabet and find out whether the number is vowel or alphabet
b. Describe any three components of the QBASIC environment
c. In QBASIC coding of program, constants are grouped into two broad headings. List and explain.

Question Three

a. Demonstrate with QBASIC programming code a program that includes a two-way decision
b. Explain the important of control structure? List three examples and their syntax
c. State with explanation the order of operation of algebraic expression in QBASIC

Question Four

a. Write a program to enter any alphabet and find out whether the number is vowel or alphabet
b. State with examples six (6) QBASIC key statement
c. What are the core advantages of programming a microcomputer with QBASIC