FINAL EXAMINATION

(FEBRUARY 2020 SESSION)

PROGRAMMING LANGUAGES
CCS21103

LECTURER :……..

MATRIC NO : ……... PROGRAMME : ……

VENUE : ……

JUNE 2020 **DURATION: 3 HOURS**

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1. Candidates must read all questions carefully.
2. The examination script consists of **SIX (6)** questions.
3. Answer ***FOUR (4)*** questions ***ONLY***.

THIS EXAMINATION SCRIPT CONTAINS 3 PAGES INCLUDING THE FRONT COVER

DO NOT OPEN THE EXAMINATION SCRIPT UNTIL FURTHER INSTRUCTION

(100 marks)
Time : 3 hours

INSTRUCTIONS
This part consists of SIX (6) questions. Answer **FOUR (4)** questions only.

1. There are many programming languages currently available on market. Various types and categories to cater different industrial needs. List FIVE (5) programming languages that you find interesting and give description about each of the programming language.

(25 marks)

2. Parameter passing is the mechanism used to pass parametrers to a class of method. Name and discuss FIVE (5) parameter passing methods for subprograms*.*

(25 marks)

3. Coding standards are a set of guidelines, best practices, programming styles and conventions that developers adhere to when writing source code for a project. Explain in detail what are the TEN (10) basic code standards that used by the most of programming languages.

(25 marks)

4. Define and write a simple C++ program to declare the following data types:

   (a) integer

   (b) floating

   (c) boolean

   (d) string

(25 marks)

5. A parse tree is an entity which represents the structure of the derivation of a terminal string from some nonterminal (not necessarily the start symbol).

   (a) Construct

   parse tree for s -->

   SS* I ss+ I a (b)

   Given the

   grammar:

   S → if (E) S | if (E) S else S

   S → other

   E → expr

   The string used to illustrate ambiguity is this:

   if (expr) if (expr)

   other else other

   Generate TWO (2)

   parse trees for it.

   (25 marks)

6. Imagine that you are working as a programmer at a prestigious company. As a programmer, you find that all the programming languages do not satisfy your programming needs. Therefore you are planning to develop your own programming language to cater the needs. Tell about your ideas on the new programming language. Give a name, introduction, the functions, syntax, data types and any related information that you find interesting about your future programming language.

   (25 marks)

END OF QUESTION