Scheme of Work Form 4 Information Technology Term3 2019-2020

Objectives 1 to 6 from Section 8 of CSEC I.T. syllabus see below:

SECTION 8: PROGRAM IMPLEMENTATION (Excerpted CSEC Syllabus effective May 2020)
GENERAL OBJECTIVES
On completion of this Section, students should:

1. know how to translate an algorithm into a high-level program; and,
2. understand how to employ techniques to successfully execute a program.
SPECIFIC OBJECTIVES CONTENT
Students should be able to:

1. distinguish between low-level and high level
programming languages;
Low-level language (Machine or Assembly).
High-level language (For example, Visual
Basic, Pascal, C).

2. describe the sequence of steps in
implementing a program;
Steps in implementing a program:
(a) create source code;
(b) translate and/or link (on some systems
this step is transparent to users);
(c) execute/run program; and,
(d) maintain program.

3. perform checks and tests on programs
to verify correctness;
Errors: syntax, logic, runtime.
Testing (test data).
Debugging techniques.

4. declare variables and constants using
elementary data types;
Data types: integer, real/double/float,
character, string and Boolean/logical.

5. translate algorithmic statements into
high-level language syntax; and,
Assignment statements; input/output
operations using standard input/output
(reading data entered via keyboard,

displaying data on monitor).
Syntax for arithmetic, logic and relational
operators.
Syntax for conditional branching (for
example, if-then, if-then-else, nested if-then else
or case).
Syntax for Iteration (Loops): for, while,
repeat.

6. effectively document programs. Importance of documentation.
Features of internal documentation (use of
mnemonic, variable names, use of
comments, indentation, effective use of
white space).

Time permitting:
Introduction to
SECTION 5: SPREADSHEETS