Assessment Schedule – 2018

Digital Technologies: Demonstrate understanding of basic concepts from computer science (91074)

Assessment Criteria

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrating understanding of basic concepts from computer science involves: • describing the key characteristics and roles of algorithms, programs and informal instructions • describing an algorithm for a task, showing understanding of the kinds of steps that can be in an algorithm, and determining the cost of an algorithm for a problem of a particular size • describing the role and characteristics of programming languages, including the different roles and characteristics of high-level languages and low-level (or machine) languages, and the function of a compiler • describing the role of a user interface and factors that contribute to its usability.	Demonstrating in-depth understanding of basic concepts from computer science involves: • explaining how algorithms are distinct from related concepts such as programs and informal instructions • showing understanding of the way steps in an algorithm for a task can be combined in sequential, conditional, and iterative structures, and determining the cost of an iterative algorithm for a problem of size *n* • explaining how the characteristics of programming languages, including the different characteristics of high-level and low-level (or machine) languages, are important for their roles • explaining the need for programs to translate between high- and low-level languages • explaining how different factors of a user interface contribute to its usability.	Demonstrating comprehensive understanding of basic concepts from computer science involves: • comparing and contrasting the concepts of algorithms, programs, and informal instructions • determining and comparing the costs of two different iterative algorithms for the same problem of size *n* • comparing and contrasting high level and low level (or machine) languages, and explaining different ways in which programs in a high-level programming language are translated into a machine language • discussing how different factors of a user interface contribute to its usability by comparing and contrasting related interfaces.

Evidence

N1	N2	A3	A4	M5	M6	E7	E8
Demonstrates very little understanding.	Report is produced by the candidate but demonstrates little understanding and part of the response may be missing.	Describes as required to show understanding. Some explanations or descriptions may be weak or partial.	Describes as required to show clear understanding.	Explains in depth as required to show understanding. Some aspects of explanation may be partial or weak.	Explains in depth as required to clearly show understanding.	Discusses, compares and contrasts as required to demonstrate comprehensive understanding. Some aspects may be partial or weak.	Discusses, compares and contrasts as required to clearly demonstrate comprehensive understanding.

N0 = No response; no relevant evidence.

Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 2	3 – 4	5 – 6	7 – 8