Compter science essay



Computer Exam Review Most programming languages are now presented
within an Integrated Development Environment A high-level language
program is called a(n) program. Source Programming statements in a
low-level language will be close to natural language and will use standard
mathematical notation. False After we normalize a number, its first
significant digit is immediately to the left of the binary point. False " Print the
value of product" is an example of a(n) operation Output In early
programming languages, conserving machine resources was not an issue.
False
A involves developing a clear, concise, and unambiguous statement of
the exact problem the software is to solve. problem specification The
if/then/else operation allows you to select exactly one of two alternatives.
True A(n) is a collection of useful algorithms. Library In a high-level
language, the programmer's only responsibilities for managing data items
are to declare (or in the case of Python, create) all constants and variables
the program will use. True The of a sound wave is a measure of its
loudness. Amplitude With a natural language, different readers can interpret
the same sentence in totally different ways.
True Transistors are constructed from, such as silicon and gallium
arsenide. Semiconductors Any whole number that can be represented in
base 10 can also be represented in base 2, although it may take digits.
More The use of high-level instructions during the design process is an
example of abstraction. True What are the four steps of the sum-of-products

algorithm? truth table construction, subexpression construction using AND

and NOT gates, subexpression combination using OR gates, circuit diagram

production The process of finding a solution to a given problem is called algorithm discovery.

True The process of searching for a special pattern of symbols within a larger collection of information is called object matching. False operations submit to the computing agent data values from the outside world that it may then use in later instructions. Input Machine language is also known as ____ code.

Object The two parts of a " while" statement are known as the loop head and the loop body. False A(n) ____ definition defines a nonterminal symbol in terms of itself recursive A stark black/white image has greater storage requirements than an image represented using a gray scale. False

Having an infinite loop in an algorithm is an error. True The outputs in the full adder are the sum digit and the new ____ digit. Carry The two digits, ____, are frequently referred to as bits. 0 and 1 Analog signals must first be digitized to be stored in the computer. True A purely ____ algorithm is sometimes termed a straight-line algorithm. sequential In assembly language, the programmer must take a microscopic view of a task, breaking it down into tiny subtasks at the level of what is going on in individual _ memory locations is the rules for exactly how statements must be written in a programming language.

Syntax To create a loop that executes exactly b times, we create a _____.

Counter One of the most powerful features of a computer is its ability to handle loops. True The object code for a task that needs to be performed often can be stored in a(n) _ code library is where the compiler polishes and fine-tunes the translation so that it runs a little faster or occupies a little less

memory. Optimization Pattern matching can only be applied to graphics and pictures. False is a circuit construction algorithm. Sum-of-products In BNF, ____ are not defined any further by other rules of the grammar Terminals In BNF, the ____ is used to separate two alternative definitions of a nonterminal. vertical bar The ____ operation complements the value of a Boolean expression. NOT Pseudocode is a set of English language constructs designed to resemble the statements in a programming language. True A sequential algorithm executes its instructions in a straight line from top to bottom and then stops. True In a posttest loop, it is possible for the loop body to never be executed. False The programmer's task is to devise the appropriate step-by-step sequence of " imperative commands" that, when carried out by the computer, accomplish the desired task.

True operations send results from the computing agent to the outside world. Output Control operations allow us to alter the normal sequential flow of control in an algorithm True The program design phase is the time to plan how it is to be done. True Each high-level language supports if statements and while loops. True The software translator used to convert our high-level language instructions into machine language instructions is called a(n) _____. Compiler In assembly language, the programmer need not manage the details of the movement of data items within memory. False