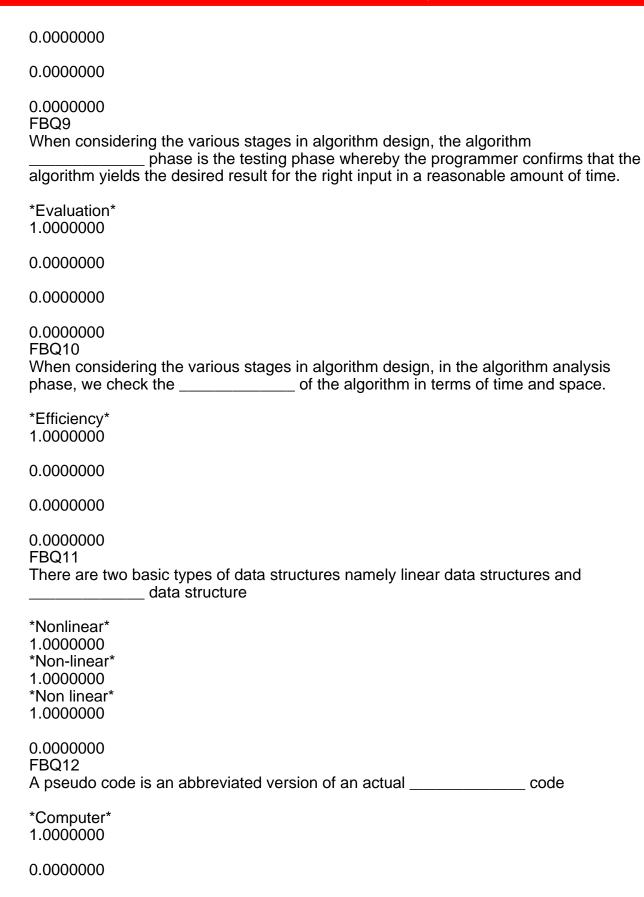
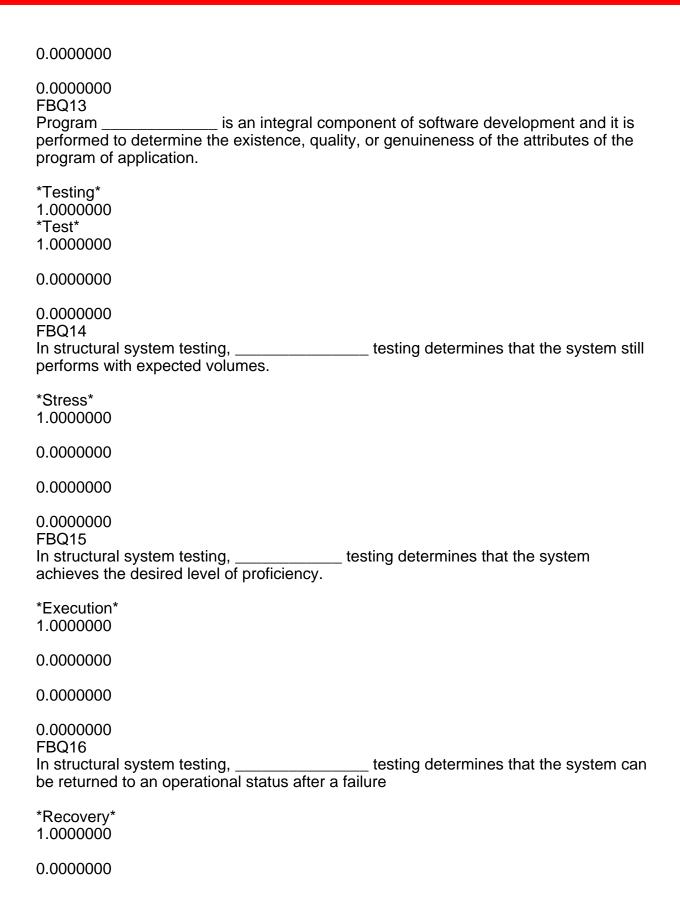
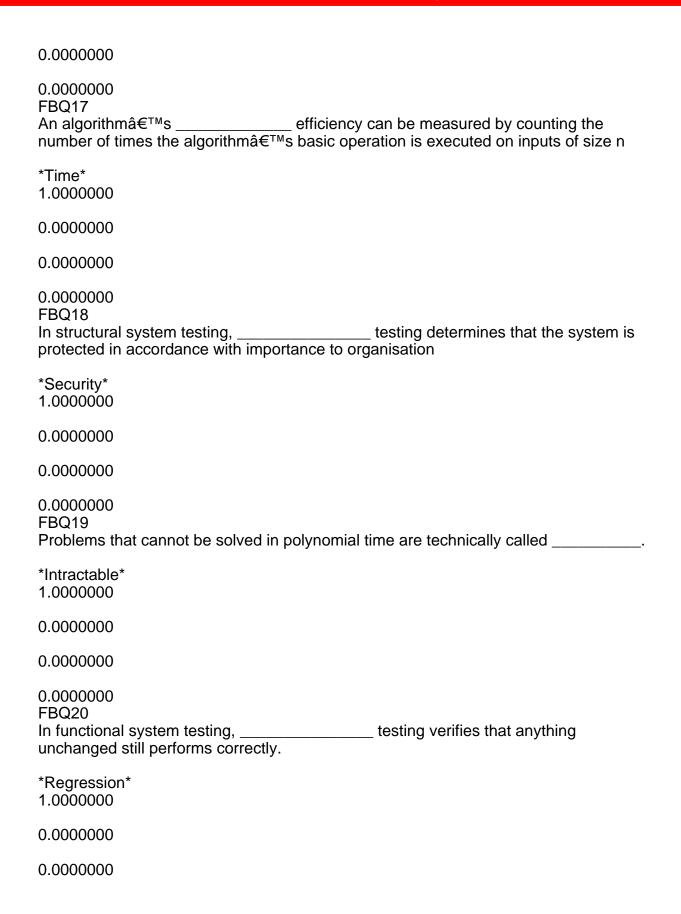
Default for CIT237 The default category for questions shared in context 'CIT237'. Fill in the Blank (FBQs) FBQ1
A is a program that converts an instruction written in any programming language other than the machine language to an understandable set of codes for the computer.
Translator 1.0000000
0.000000
0.000000
0.0000000 FBQ2 A program is a series of steps, each of which performs a calculation, retrieves input, or produces output.
Procedural 1.0000000
0.0000000
0.0000000
0.0000000 FBQ3 Floating-point numbers normally have two parts namely the mantissa and
Exponent 1.0000000
0.0000000
0.0000000
0.0000000 FBQ4 In a programming environment, the will translate a program written in high level language stored in a text mode on a disk to the program stored in a machine-oriented language on a disk.
Compiler 1.0000000
0.000000

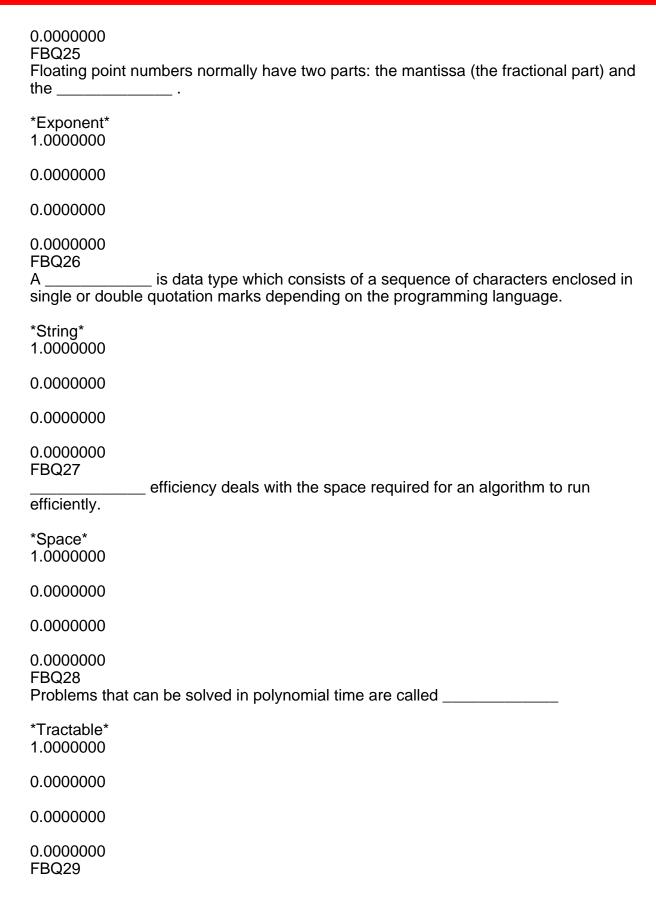
0.0000000		
0.0000000 FBQ5 In a programming environment, theoriented	loader picks up the machine-	
program and combines it with any necessary software to enable the program to be run.		
Linker 1.0000000 *Loader* 1.0000000		
0.0000000		
0.0000000 FBQ6 In the program development cycle,statement of the problem is stated.	analysis is where the clear	
Problem 1.0000000		
0.0000000		
0.0000000		
0.0000000 FBQ7 The first generation of computers was coded in specific to each model of computer	language that was	
Machine 1.0000000		
0.0000000		
0.0000000		
0.0000000 FBQ8 An is a finite sequence of unambig problem in a finite amount of time.	uous instructions/steps for solving a	
Algorithm 1.0000000		



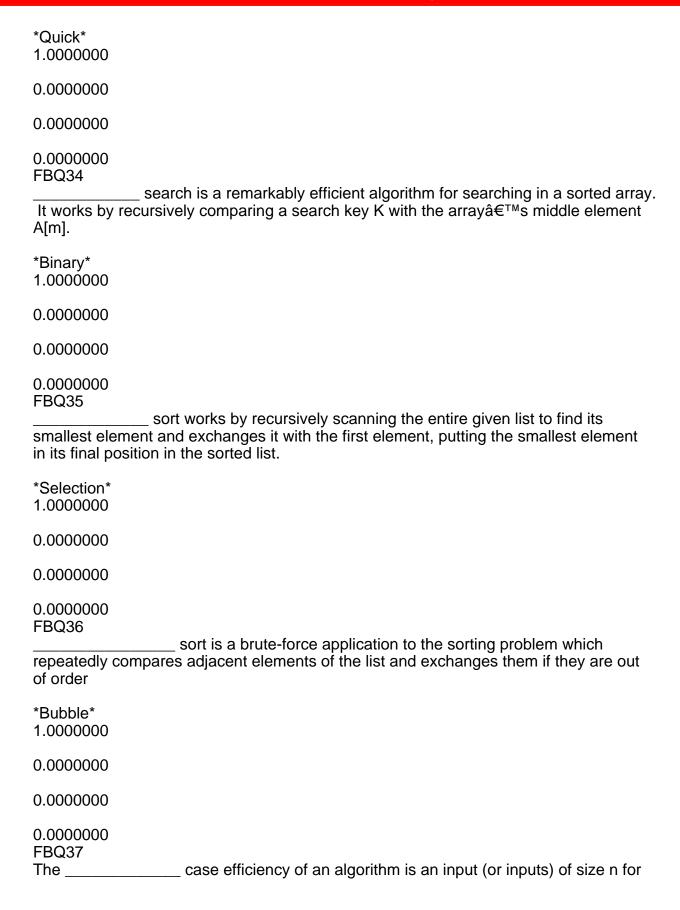




0.0000000 FBQ21 In functional system testing, testing determines that the controls reduce system risk to an acceptable level.
Control 1.0000000
0.0000000
0.0000000
0.0000000 FBQ22testing runs old system and new system and compares results to
detect unplanned differences.
Parallel 1.0000000
0.0000000
0.0000000
0.0000000 FBQ23 Program is the procedure of including illustrations or comments to explain lines or segments within the program.
Documentation 1.0000000
0.0000000
0.0000000
0.0000000 FBQ24 Program is the act of ensuring the smooth and continuous working of the program in the nature of business and dynamics of operation.
Maintenance 1.0000000
0.0000000
0.0000000

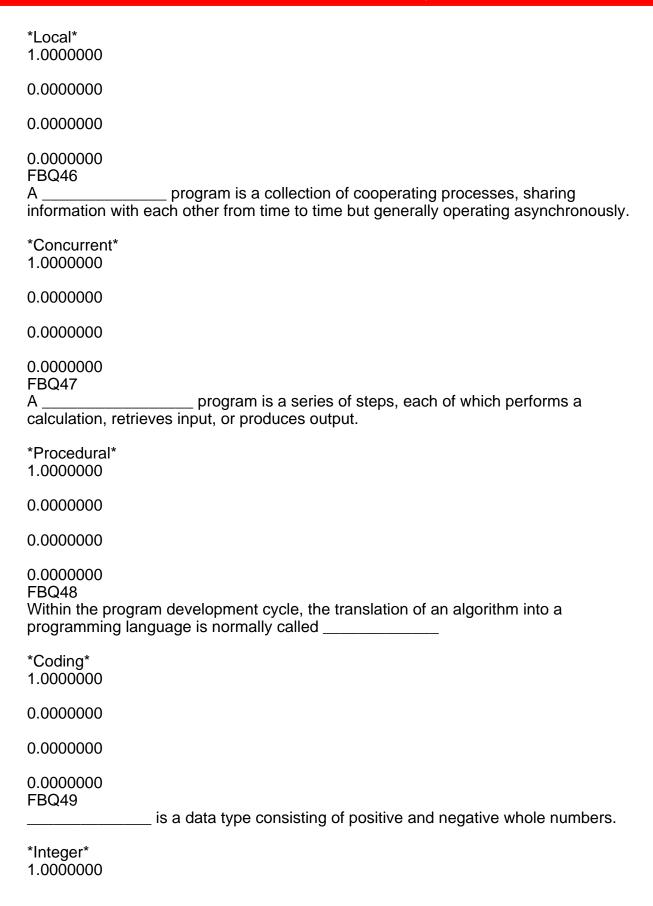


A graph consists of	things:	
Two 1.0000000 *2*		
1.0000000		
0.0000000		
0.0000000 FBQ30	a the process of arranging a set of it	ome or objects in increasing
or decreasing order.	s the process of arranging a set of it	ems or objects in increasing
Sorting 1.0000000		
0.0000000		
0.0000000		
0.0000000 FBQ31 A graph can be defined	d as the connection of points in a pla	nne called
Vertices 1.0000000		
0.0000000		
0.0000000		
	onquer approach, their position in the array.	_ sort divides its input's
Merge 1.0000000		
0.0000000		
0.0000000		
0.0000000 FBQ33 Using the divide-and-celements according to	onquer approach,value.	_ sort divides its input's



which the algorithm runs the fastest among all possible inputs of that size. *Best* 1.0000000 0.0000000 0.0000000 0.0000000 FBQ38 The ____ ____ case efficiency of an algorithm is calculated by dividing all instances of size n into several classes so that for each instance of the class, the number of times the algorithm's basic operation is executed is the same. *Average* 1.0000000 0.0000000 0.0000000 0.0000000 FBQ39 ___ case efficiency of an algorithm is an input (or inputs) of size n for which the algorithm runs the longest among all possible inputs of that size. *Worst* 1.0000000 0.0000000 0.0000000 0.0000000 FBQ40 list is a sequence of zero or more elements called nodes, each containing two kinds of information: some data and one or more pointers to other nodes of the list. *Linked* 1.0000000 0.0000000 0.0000000 0.0000000 FBQ41

A is a data structure in which insertion and deletion can only be done at one end (called the TOP).
Stack 1.0000000
0.000000
0.000000
0.0000000 FBQ42 A is a data structure with two ends, in which an insertion is made at one end (REAR) and a deletion is done at the other end (FRONT).
Queue 1.0000000
0.000000
0.000000
0.0000000 FBQ43 is the process of adding elements to the stack.
PUSH 1.0000000
0.000000
0.000000
0.0000000 FBQ44 POP is the process of deleting elements from the
Stack 1.0000000
0.000000
0.000000
0.0000000 FBQ45 Hill climbing is an optimisation technique which belongs to the family of search.



0.0000000
0.0000000
0.0000000 FBQ50 numbers are data types consisting of numbers with fractional parts.
Real 1.0000000
0.0000000
0.0000000
0.0000000 Multiple Choice Questions (MCQs) MCQ1
The 1st generation of computers was coded in language.
FORTRAN
0.0000000 CODD
0.0000000 Machine
1.0000000 Set
0.0000000 MCQ2 Which of the following options is NOT a conventional feature which a programming language must possess?
It must have syntactic rules for forming statements.
0.0000000 It must have a vocabulary that consists of letters of the alphabet.
0.0000000 It must be easy to learn.
1.0000000 It must have a language structure, which consists of keywords, expressions and statements.

0.0000000 MCQ3

Which programming methodology is a collection of mathematical functions, each with an input (domain) and a result (range).

Procedural Programming

0.0000000

Logic Programming

0.0000000

Functional Programming

1.0000000

Scientific programming

0.0000000

MCQ4

Which programming methodology is characterised by a collections of objects that interact with each other by passing messages that transform their state?

Procedural Programming

0.0000000

Object-Oriented (OO) Programming

1.0000000

Concurrent Programming

0.0000000

Scientific programming

0.0000000

MCQ5

Which of the options below is NOT a programming methodology?

Procedural Programming

0.0000000

Event Driven Programming

0.0000000

Functional Programming

0.0000000

Scientific programming

1.0000000

MCQ6

Which programming methodology is a collection of cooperating processes, sharing information with each other from time to time but generally operating asynchronously.

Procedural Programming

0.0000000

Concurrent Programming

1.0000000

Event Driven Programming

0.0000000

Scientific programming

0.0000000

MCQ7

is the major difference between interpreters and compliers?

Interpreters convert programs in high-level language to machine language while compliers convert low-level language to machine language

0.0000000

Interpreters convert programs in low-level language to machine language while compliers convert high-level language to machine language

0.0000000

The compiler converts the entire source program into object code before the entire program is executed while the interpreter translates the source instructions and executes line by line

1.0000000

The compiler translates the source instructions line by line while the interpreter converts the entire source program into object code before the entire program is executed

0.0000000

MCQ8

Which of the following algorithms does NOT adopt the strategy of divide-and-conquer?

quick search

1.0000000

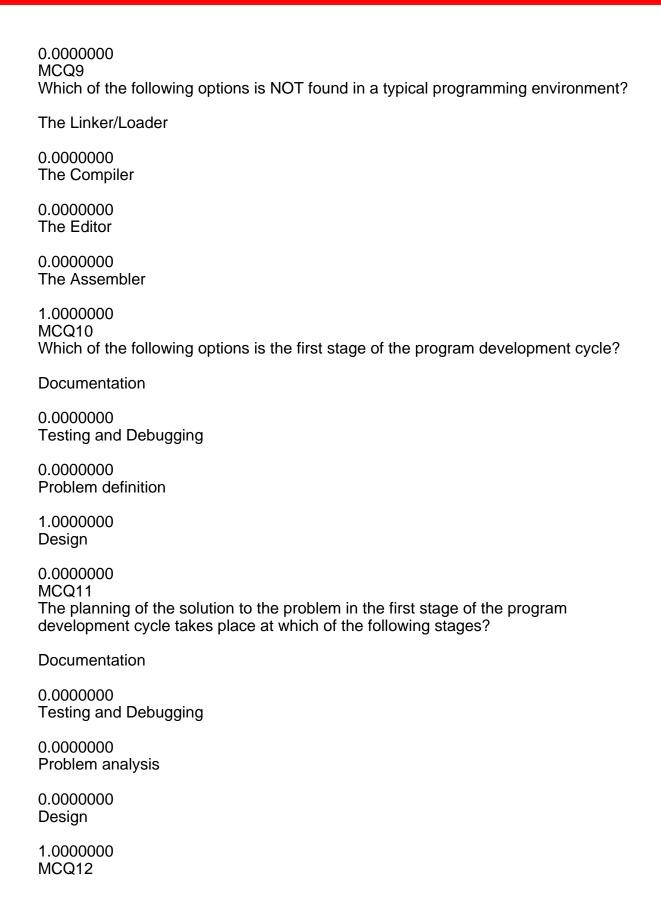
merge sort

0.0000000

quick sort

0.0000000

binary search



Which stage of the program development cycle consists of organising all the materials that describe the program?

Documentation

1.0000000

Testing and Debugging

0.0000000

Problem definition

0.0000000

Coding

0.0000000

MCQ13

Normal program execution typically consists of four (4) stages. Which of the following options is NOT one of these stages?

The Program (Source Code)

0.0000000

The Debugging Process

1.0000000

The Object Code

0.0000000

The Output

0.0000000

MCQ14

Which of the following options is NOT a major consideration when writing good programs?

Naming convention

0.0000000

Language selection

1.0000000

Formatting and Indentation

0.0000000

Classes

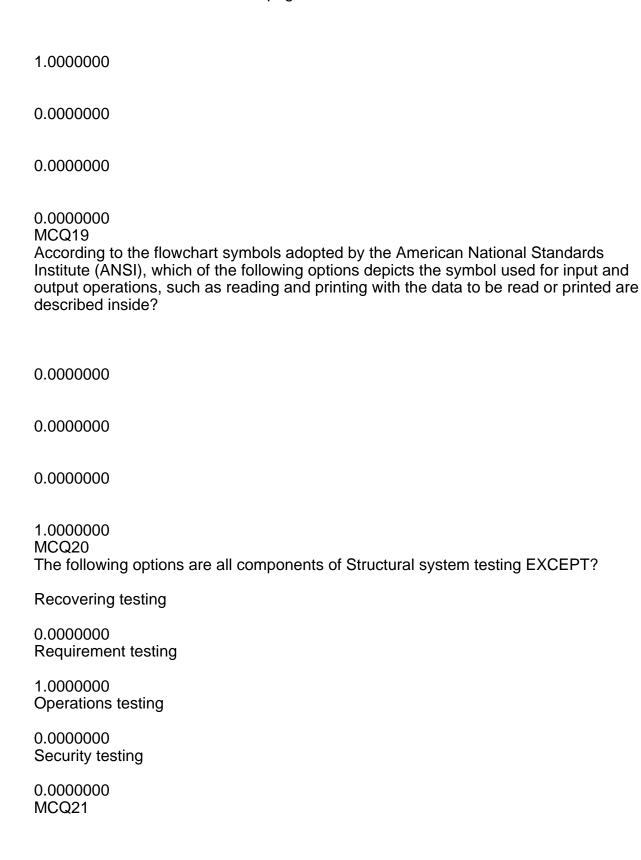
0.0000000

MCQ15

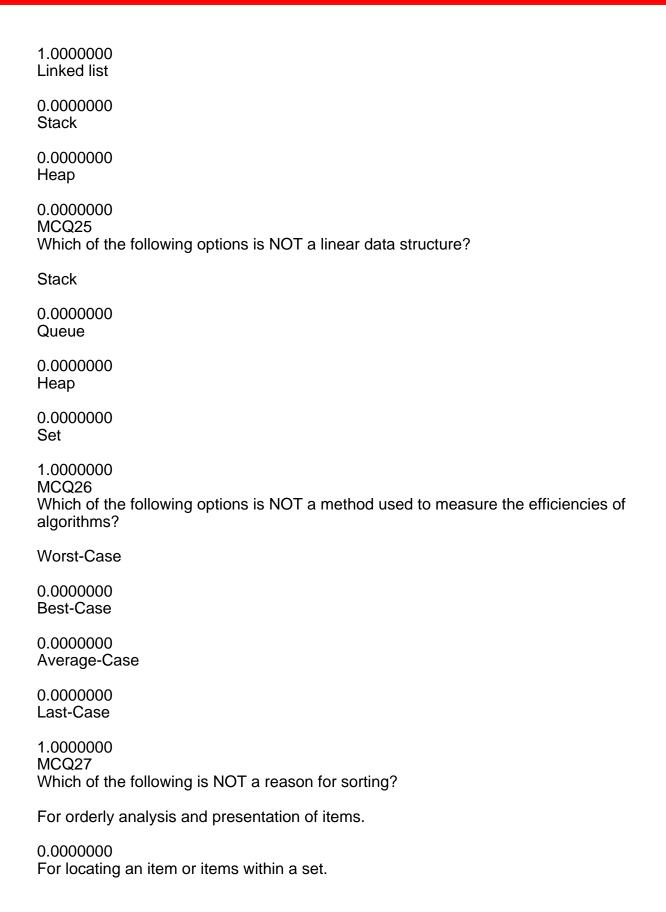
Which of the following options is NOT true about algorithms?

An algorithm must have a beginning and an end.
0.0000000 Each step of an algorithm should be ambiguous.
1.0000000 Several algorithms for solving the same problem may exist.
0.0000000 Algorithms must terminate after a reasonable period of time.
0.0000000 MCQ16 According to the flowchart symbols adopted by the American National Standards Institute (ANSI), which of the following options depicts the symbol used to represent the beginning (start) or the end (stop) of a task?
0.000000
0.000000
0.000000
1.0000000 MCQ17 According to the flowchart symbols adopted by the American National Standards Institute (ANSI), which of the following options depicts the symbol used for arithmetic and data manipulation operations with the instructions listed inside the symbol?
0.000000
0.000000
1.0000000
0.0000000 MCQ18 According to the flowchart symbols adopted by the American National Standards

Institute (ANSI), which of the following options depicts the symbol that indicates the flowchart continues on a second page?



The following options are all components of Functional system testing EXCEPT? Parallel testing 0.0000000 Regression testing 0.0000000 Stress testing 1.0000000 Control testing 0.0000000 MCQ22 Which of the following options is NOT a major standard integer data type? Byte 0.0000000 Word 0.0000000 Single 1.0000000 Short int 0.0000000 MCQ23 The following options are all examples of the standard real data type EXCEPT? Single 0.0000000 Double 0.0000000 Word 0.0000000 Extended 1.0000000 MCQ24 can be defined as sequences of objects all of which are of the same type that are collectively referred to by the same name. Array



0.0000000

To introduce duplicate values into a set.

1.0000000

Finding the intersection of two or more sets.

0.0000000

MCQ28

Which of the following options describes the algorithm outlined below?

Divide the problems into several, smaller sub-instances;

Independently solve these sub-instances;

Combine the solutions of the sub-instances to yield a solution for the original problem.

Bubble sort algorithm

0.0000000

Divide and conquer algorithm

1.0000000

Merge sort algorithm

0.0000000

Split – merge sort algorithm

0.0000000

MCQ29

When analysing the efficiency of an algorithm, which of the following options is NOT a basic operation?

Variable assignment

0.0000000

A comparison between two variables

0.0000000

An arithmetic operation between two variables

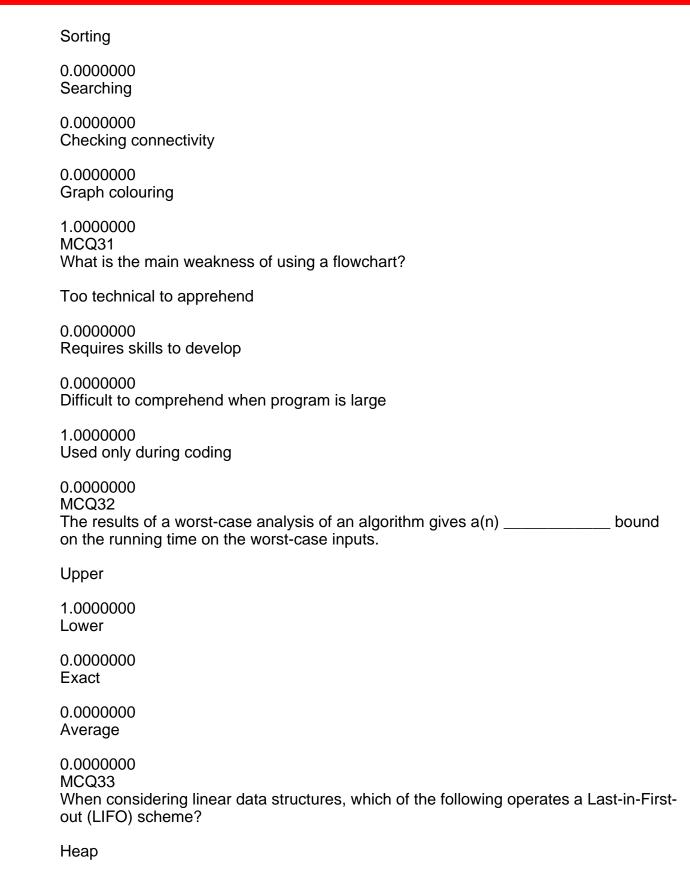
0.0000000

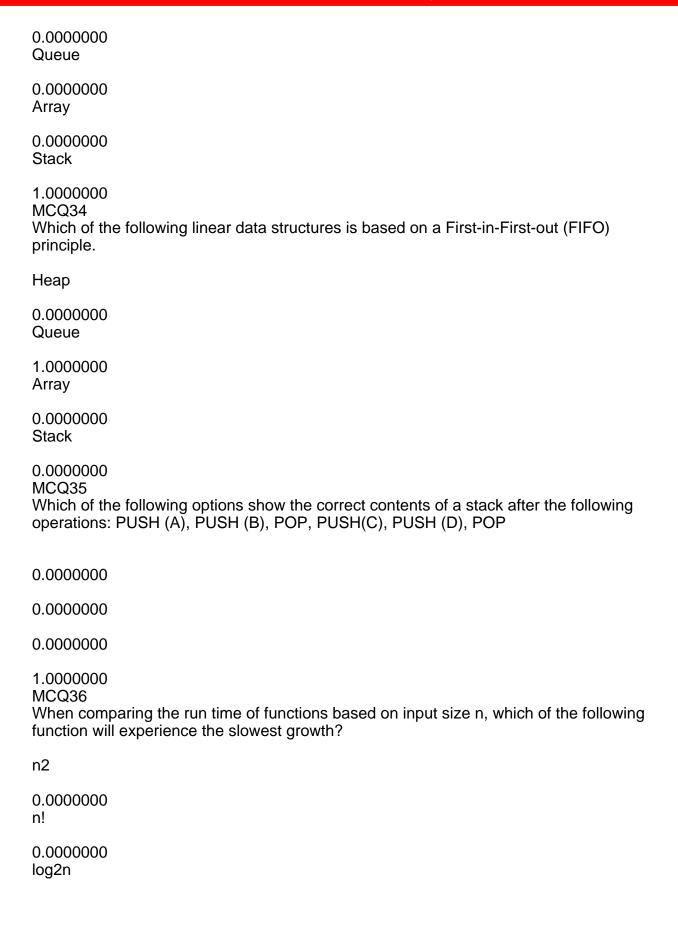
Sorting variables

1.0000000

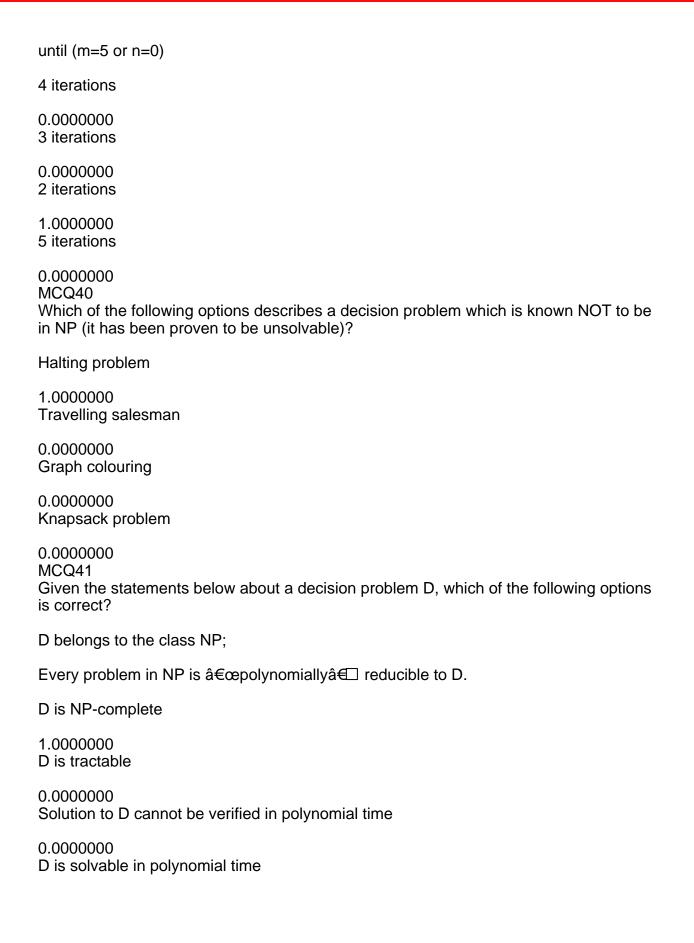
MCQ30

Which of the following options describes an algorithm which CANNOT be solved in polynomial time?





```
1.0000000
2n
0.0000000
MCQ37
When comparing the run time of functions based on input size n, which of the following
function will experience the fastest growth?
n2
0.0000000
0.0000000
log2n
0.0000000
2n
1.0000000
MCQ38
Which of the following options is the most precise asymptotic symbol for representing
the order of growth of algorithms?
Î~-Notation (â€~is theta of')
0.0000000
O-Notation (â€~big oh of')
0.0000000
Ω-Notation (â€~is omega of')
1.0000000
o-Notation (â€~little of of')
0.0000000
MCQ39
For the algorithm given below, how many iterations are involved?
m := 3;
n := 5;
loop
n := n - 1;
m := m + 1;
```



0.0000000

MCQ42 Given an instance of the problem to be solved, which of the following statements is NOT a fundamental step of the divide-and-conquer algorithm? Split this into several smaller sub-instances 0.0000000 Combine the solution of sub-instances 0.0000000 Independently solve each sub-instance 0.0000000 Find the average of the sub-instances 1.0000000 MCQ43 The efficiency of the †bubble sort†algorithm is given by? î~(n2) 1.0000000 Î~(n) 0.0000000 Î~(log2n) 0.0000000 Î~(2n) 0.0000000 MCQ44 Which of the following options is a type (sub-set) of the â€~Knight's tour' problem? Hamiltonian path problem 1.0000000 Travelling salesman problem. 0.0000000 Graph colouring problem 0.0000000 Knapsack problem 0.0000000

MCQ45 The following options are all examples of non-linear data structures EXCEPT: Graph 0.0000000 Heap 1.0000000 Tree 0.0000000 **Forest** 0.0000000 MCQ46 Which programming methodology is a continuous loop that responds to prompts that are generated in an unpredictable order? **Procedural Programming** 0.0000000 Logic Programming 0.0000000 **Functional Programming** 0.0000000 Event-driven programming 1.0000000 MCQ47 Which of the following options is NOT a valid reason for program maintenance? Changes in nature of business 0.0000000 Dynamics of operation 0.0000000 Changes in technology 0.0000000 Changes in computer operator

1.0000000 MCQ48

Which of the following options is NOT a string data type?

