

OCR Computer Science AS Level

2.2.1 Programming Techniques

Flashcards



Name the three programming constructs



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Sequence, branching and iteration.



Which two categories of loop is iteration split up into?



Which two categories of loop is iteration split up into?

- Count-controlled
- Condition-controlled



Describe how the branching programming construct works



Describe how the branching programming construct works

A certain block of code is run if a specific condition is met, using IF statements.



Define scope



Define scope

The section of the program in which a variable is accessible.



Give two advantages of using local variables over global variables



Give two advantages of using local variables over global variables

Two from:

- Less memory used
- Self-contained so unaffected by code outside of the subroutine
- Take precedence over global variables with the same name



State two advantages of
a modular design



State two advantages of a modular design

Two from:

- Makes a problem easier to understand and approach.
- Simpler to divide tasks between a team
- Easier to manage project
- Self-contained modules simplify testing and maintenance
- Greater reusability



What is top-down design?



What is top-down design?

A technique used to modularise programs in which the problem is continually broken down into sub-problems, until each can be represented as an individual, self-contained module which performs a certain task.



Give an alternative name for
top-down design



Give an alternative name for top-down design

Stepwise refinement



What is the difference between
procedures and functions?



What is the difference between procedures and functions?

Functions must always return a single value while a procedure does not always have to return a value.



What does it mean to pass a parameter to a subroutine by reference?



What does it mean to pass a parameter to a subroutine by reference?

The address in memory of the parameter is passed to the subroutine so its value outside of the subroutine will be updated.



State two features of IDEs



State two features of IDEs.

Two from:

- Stepping
- Variable watch
- Breakpoint
- Source code editor
- Debugging tools



What does IDE stand for?



What does IDE stand for?

Integrated Development Environment

