

## OCR Computer Science A Level 1.2.2 Applications Software

**Flashcards** 













## What is the difference between applications and systems software?







What is the difference between applications and systems software?

Applications software is utilised directly by the end-user whereas systems software ensures the high performance of the computer.







### Give 3 examples of utilities











#### Give 3 examples of utilities

#### Three from

- Compression
- Disk defragmentation Automatic updating
- Antivirus

- Automatic backup



## Give one advantage of using closed source code















#### Give one advantage of using closed source code

- Thorough, regular and well-tested updates
- Expert support and user manuals from company
- High levels of security as it is developed in a professional, controlled environment





## State two features of open source code









#### State two features of open source code

- Does not require a license to be used
- Distributed with the source code
- Can be modified and sold on







## Give two advantages of using compiled code over interpreted code











Give two advantages of using compiled code over interpreted code

- Faster to execute
- Does not require compiler to run







## Give two advantages of using interpreted code over compiled code







# Give two advantages of using interpreted code over compiled code

#### Two from:

- Is platform independent
- Runs instantly without time waiting for compilation
- Useful for debugging







## What is assembly language?











What is assembly language?

A low-level language that has almost a one-to-one relationship with machine code. It is platform specific.













What are the stages of compilation?













#### What are the stages of compilation?

- Lexical analysis
- Syntax analysis
- Code generation
- Optimisation







### What happens during syntax analysis?









#### What happens during syntax analysis?

- Tokens are compared to the rules of the programming language
- Syntax errors are identified
- Symbol table updated with more details
- Semantic analysis (finding logic errors)







## What are the similarities and differences between static and dynamic linkers?







## What are the similarities and differences between static and dynamic linkers?

Similarities: Both link external modules and libraries to main program

Static: Library code copied into the file. File size increased.

Dynamic: Addresses of libraries included within file. External updates automatically feed through to main program.







Give three advantages of using libraries.













#### Give three advantages of using libraries.

- Error-free
- Save time
- Re-usable
- No need to 'reinvent the wheel'
- Designed by experts





#### Describe the function of a loader







#### Describe the function of a loader

Provided by the operating system, a loader retrieves the library or subroutine from the given memory location.









## What is the purpose of the optimisation stage of compilation?













What is the purpose of the optimisation stage of compilation?

- Reduce execution time
- Reduce inefficient sections of code
- Remove redundant code

