

1.5.4 Language Translators

May/June 2003. P3

1. (a) If a sequence of high level language instructions is inside a loop and that loop will be executed 2000 times, explain why using an interpreter to run this sequence will be slower than running a compiled version. [2]

Oct/NOV 2003. P3

3. (a) Explain why an interpreter would be preferred to a compiler as a translator when writing a high level language program. [5]

May/June 2006. P3

1 (a) Explain why a program, written in a high level language, needs to be translated before it is run on a computer. [2]

May/June 2007. P3

6. A name is passed as a parameter to a function.

The function uses a loop structure to search for the name in an array.

It returns the details found to the calling program.

(c) Two types of translator are interpreters and compilers.

Describe the difference between an interpreter and a compiler and state why both would be used with this function. [4]

Oct/NOV 2008. P3

2. Interpreters and compilers can be used to translate high level language code into a form understood by a computer.

(c) (i) State one reason for using a compiler rather than an interpreter to execute a piece of high level language code. Justify your answer. [2]

(ii) State one reason for using an interpreter rather than a compiler to execute a piece of high level language code. Justify your answer. [2]





1.5.4 Language Translators

May/June 2010. P31 / P32

1. (a) Explain the differences between using a compiler and an interpreter for:

- (i) the translation of a high-level language program,
- (ii) the execution of a high-level language program.

[6]

Oct/NOV 2010. P31/ P32

4. (a) Explain differences between using an interpreter and a compiler when translating and executing a source code program. [6]

Oct/NOV 2011. P32/ P32

9 (b) (i) Give two advantages of using a compiler rather than an interpreter to translate a high-level language program. [2]

(ii) Describe an advantage of using an interpreter rather than a compiler to translate a high-level language program. [2]

Oct/NOV 2012. P31/ P32

4 The two types of software which are used to translate high-level language programs are a compiler and an interpreter.

(b) Describe two benefits of using a compiler (rather than an interpreter). [2]

Oct/NOV 2012. P33

4 Two types of software which are used to translate high-level programs are a compiler and an interpreter.

(b) Describe two advantages of using an interpreter rather than a compiler. [2]

May/June 2013. P33

5 (a) Describe four differences between using a compiler or interpreter for the translation process and the execution of a high-level language source code program. [4]

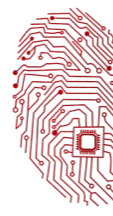
Oct/Nov 2014.P32

5 (a) An assembler translates assembly language programs. A compiler translates high-level language programs. They each do this for programs written in a particular language and for a particular processor.

Name **two** features which these translators have in common. [2]

(c) A developer writes programs in a high-level language. Both an interpreter and compiler exist for the language.





1.5.4 Language Translators

(i) Describe two benefits that the use of an interpreter would offer.

[2]

(ii) Describe one drawback in the use of an interpreter.

[1]

May/June 2015. P31/ P32

6 A team of programmers has developed software using a variety of languages and software tools.

Some of the code was written in the XYZ high-level language and some in an assembly language.

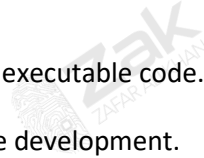
The programmers have also made use of program libraries.

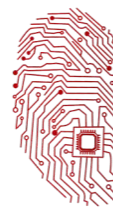
The programmers had available both a compiler and an interpreter for the high-level code written. Some of the early error detection was carried out using an interpreter.

The diagram opposite shows the complete development life cycle, finishing with the final executable code.

(c) Describe one benefit and one drawback of using an interpreter for part of the software development.

[2]





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Computer Science (9608)

Oct/Nov 2015. P11/P13

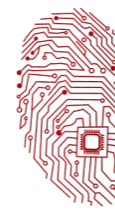
11 A game program is written which can be either interpreted or compiled. The table below shows five statements about the use of interpreters and compilers.

Tick (✓) to show whether the statement refers to an interpreter or to a compiler.

Statement	Interpreter	Compiler
This translator creates an executable file		
When this translator encounters a syntax error, game execution halts		
The translator analyses and checks each line just before executing it		
This translator will produce faster execution of the game program		
Use of this translator makes it more difficult for the user to modify the code of the game		

[5]





1.5.4 Language Translators

May/ June 2016. P11/ P12

1 Three examples of language translators and four definitions are shown below. Draw lines to link each language translator to the correct one or more definitions.

Language translator

Definition

Compiler

The software reads the source code and reports all errors. The software produces an executable file.

Assembler

The software reads each statement and checks it before running it. The software halts when it encounters a syntax error.

Interpreter

The software translates a high-level language program into machine code for the processor to execute.

The software translates low-level statements into machine code for the processor to execute.

[3]

May/ June 2016. P13

1 Describe **two** differences between a compiler and interpreter.

[4]

