



Past Papers Questions:

Section 3.2: The Functions and Purposes of Translators

May/June 2003

- 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]
- (b) Using examples, explain what happens during the lexical analysis stage of compilation. [4]

October / November 2003

- 3 (a) Explain why an interpreter would be preferred to a compiler as a translator when writing a high level language program. [5]
- (b) Describe the process of syntax analysis when compiling a program. [3]

May/June 2004

- 4 Describe what happens during the syntax analysis stage of compilation. [5]

October/November 2004

- 4 Explain the purpose of linkers and loaders when running a program. [6]

May/June 2005

- 6 (a) Explain the difference between interpretation and compilation of a program written in a high level language. [2]
- (b) Explain what happens during the lexical analysis stage of compilation. [5]
- (c) Describe two things that happen during code generation. [4]

October/November 2005

- 5 (c) Explain the role of
(i) linkers,
(ii) loaders
in the running of programs [4]

May/June 2006

- 1 (a) Explain why a program, written in a high level language, needs to be translated before it is run on a computer. [2]
- (b) Describe the difference between interpretation and the compilation of a high level language program. [4]
- (c) Explain how errors in the
(i) reserved words,
(ii) variables
used in high level language instructions are recognised by the translator program. [4]

October/November 2006

- 4 (a) Explain the purpose of the code generation phase of compilation, including the principle of optimisation. [3]
- (b) Explain the purpose of
(i) linkers,
(ii) loaders
in the running of a computer program. [4]

May/June 2007

- 6 (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]
(d) Explain the purpose of a loader in the running of the final program. [2]

October/November 2007

- 7 Describe how a variable in a high level language program is dealt with by a compiler. [6]

May/June 2008

- 9 (a) Describe how a compiler recognises a syntax error. [4]
(b) Describe the code generation phase of compilation. [4]