



1.2.2 Stages of Compilation

1. Describe what takes place during the following stages within the compilation process:

a) Lexical analysis.

[3 marks]

- Comments and whitespace /unnecessary spaces are removed.
- Source code is broken into tokens.
- A symbol table is produced containing information about identifiers.

b) Syntax analysis.

[3 marks]

- The order of tokens is checked to see whether the rules of the language are being followed.
- A syntax error is generated/reported if the code does not follow the language's syntax rules.
- An abstract syntax tree (AST) is produced.

c) Code generation.

[1 mark]

- Object code/machine code is produced.

2. What is the purpose of code optimisation?

[2 marks]

- To make the program run faster.
- To reduce the resources required, such as memory.

