31) **program optimization, general issues, optimization levels**

Optimisation is expensive in labour and time

Is an open ended process may fail or not reach desired performance

Various optimisation techniques used in different development phases

Some of them need a lot of experience

Tools are available

**Types of optimisation**

High Level - Choose a better algorithm

Research and development

May not find a better one and have to design one

Medium Level - make a better implementation

Language independent but best performance improvement obtained in assembly

language

Low level (cycle counting)

Heavily hardware dependent