

1994 Paper 1 Question 11

In Modula-3 what are object types, and how do they differ from simple record data types?

In this context give a brief explanation of method invocation, inheritance and of each of the keywords `METHODS`, `NEW` and `OVERRIDES`. Include short examples where appropriate. [10 marks]

Describe briefly the facilities in Modula-3 for defining and using array and reference types.

Explain the concept of an *open array*, showing how access to an array that is received as an argument by a procedure may differ from direct references to the same array. Give an example of a programming task that would be harder in Modula-3 if open arrays were not provided. [10 marks]