2000 Paper 13 Question 6

Comparative Programming Languages

Give a brief summary of the main syntactic constructs found in the programming language Smalltalk. Other languages often have the conditional constructs if–then–else and while. Show how these two constructs can be defined in Smalltalk.

[8 marks]

Illustrate the use of Smalltalk by showing how you would define a method to compute the factorial of an integer. [8 marks]

Although Smalltalk was originally designed to be an interpretive language, modern implementations are dramatically more efficient. Briefly outline what techniques might have been used to make this improvement. [4 marks]