

2000 Paper 6 Question 5

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]