

## 1999 Paper 9 Question 10

### Denotational Semantics

Define what it means for two closed PCF terms of the same type to be *contextually equivalent*. [5 marks]

Explain why the denotational semantics of PCF using domains and continuous functions fails to be *fully abstract* with respect to its operational semantics. You may use any standard properties of the operational and denotational semantics without proof, so long as they are clearly stated. [15 marks]