## 2004 Paper 4 Question 2

## **Economics and Law**

- (a) What is "strategy" in game theory? [5 marks]
- (b) Explain the difference between a dominant strategy equilibrium and a Nash equilibrium. [5 marks]
- (c) Participants in a peer-to-peer file-sharing system can either cooperate (share their files with others) or cheat (try to download from others without making any contribution themselves). Write down a possible payoff matrix for their behaviour, and identify the Nash equilibrium. [5 marks]
- (d) Is this equilibrium Pareto-efficient, and, if not, what can be done to make it so? [5 marks]