## 2007 Paper 13 Question 10

## **Bioinformatics**

- (a) Describe a bioinformatics application of hidden Markov models. [6 marks]
- (b) Discuss the properties of the Markov clustering algorithm and the differences with respect to the k-means and hierarchical clustering algorithms. [8 marks]
- (c) Describe the Gillespie algorithm and discuss its relationship with genetic or biochemical networks (give one example). [6 marks]