## 2008 Paper 7 Question 2

## **Additional Topics**

- (a) Give a brief description of the three segments that make up the Global Positioning System (GPS), and their main software, hardware and information components. [5 marks]
- (b) What are the main timing observables from the GPS signals, and how can they be processed to give time, position and velocity? [5 marks]
- (c) What data is broadcast in the GPS signals, and how is it used by receivers? [5 marks]
- (d) Explain some of the ways in which an additional communication channel can be used to assist a GPS receiver, and what advantages the user might observe.

  [5 marks]