## 1993 Paper 13 Question 8

## **Databases**

Describe the ANSI-SPARC architecture for managing data, explaining how it enables *data independence* to be achieved. [6 marks]

Outline the CODASYL/DBTG proposals for network database management, showing how they relate to the ANSI-SPARC architecture. [8 marks]

In what ways do the DBTG proposals compromise data independence? [3 marks]

What provision is made for data security in them? [3 marks]