2004 Paper 12 Question 3

Digital Communication I

(a) Define the terms *flat* and *hierarchical* as applied to address spaces. [2 marks]

(b) Give *four* examples of address spaces and state whether they are flat or hierarchical, and why. [4 marks]

(c) Describe class-based addresses as used in the Internet. You need not worry about precise field sizes or class names. [4 marks]

(d) Describe classless addresses as used in the Internet. [3 marks]

(e) Why were they introduced? [2 marks]

(f) What information must be held in a routing table when classless addresses are used? [5 marks]