1999 Paper 6 Question 1

Data Structures and Algorithms

Splay trees provide an adaptive mechanism for the representation of sets of character strings. Outline the structure used by splay trees and briefly describe how the *insert*, *lookup* and *delete* operations work. [10 marks]

Discuss the advantages and disadvantages of using splay trees compared with the use of hash tables for the representation of sets of distinct character strings.

[10 marks]