

**COE 444 - Internetwork Design and Management  
Spring 2003 (Term 022)**

**Homework 5**

Date: Thursday, April 17, 2003

**Q1.**

**a.** If full meshing is required among  $n$  nodes, then how many circuits are needed?

**b.** A collection of five X.25 Packet switch exchanges (PSEs) are to be connected. Between every two PSEs the designer may assign a 64 Kbps line or no line. If it takes 100 ms to generate and evaluate each topology, how much time would be required to inspect all of them and select the one that best matches the expected load and delay requirements?

**Q2.** Answer the following review questions from the “Cisco Internetwork Design” handout:

- Chapter 2 (1 → 7)
- Chapter 3 (1, 2, 3, 6)
- Chapter 4 (4)
- Chapter 5 (1 → 4, 6)

**Q3.** Draw the Structured Cabling System (SCS) topology including the names of the 3 distribution points and the 3 cabling areas/subsystems.

**Q4.** Describe the role of a distribution point

**Q5.** List the main media options used, the maximum distance used, and the maximum patch cord distances allowed in each cabling area/subsystem. Why there is a limitation in these distances?