



School of Computer Science and Software Engineering

CSE3020 Network Technology Semester 2, 2003

Tutorial 11 - Week 12

Question T11.1 - What geometric shape is used in cellular system design? And explain why.

Hexagon. Provide equidistant antennas; layout requires fewer cells and thus fewer transmitter sites (BSs, antennas).

Question T11.2 - What is the principle of frequency reuse in the context of a cellular network?

The same set of frequencies are used in multiple cells, with these cells separated from one another by enough distance to avoid interference.

Question T11.3 - List five ways of increasing the capacity of a cellular system.

From Stallings 7th Edition, page 435.

Question T11.4 - What are the three multipath propagation mechanisms? Briefly explain each one of them.

From Stallings 7th Edition, pages 442-443.

Question T11.5 - What are the functions of a mobile switching center (MSC) or mobile telecommunications switching office (MTSO)?

Lecture slide 24.

Question T11.6 - What is the difference between a hard handoff and a soft handoff?

From lecture slide no 13.

Question T11.7 - Briefly describe the steps involved in a typical call in single MTSO area.

From Stallings 7th Edition, pages 438-440.