



*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.*