

Subject Name: Mobile Computing
Subject Code: ECS-087

Assignment 4

Attempt any three questions:

1. What is mobile agent and what are merits, demerits. Define its life cycle.
2. Discuss the various mobile transaction models.
3. Describe various security techniques and algorithms used in mobile Computing with example.
4. Give suitable example of general authentication and privacy procedure for D- AMPS with diagram.

OR

5. Describe fault tolerance in mobile computing environment in details.
6. Describe the architecture and working of Transaction processing in mobile computing environment.
7. List the security threats and security measures to a mobile agent system in mobile computing.
8. Discuss various challenges in transaction processing.

OR

9. Suppose that A,B,C are simultaneously transmitting 0 bits , using CDMA system with following sequences :

$A = (-1-1-1+1+1-1+1+1)$, $B = (-1-1+1-1+1+1+1-1)$, $C = (-1+1-1+1+1+1-1-1)$

What is the resulting chip sequence?

10. A certain city has an area of 1300 square miles and is covered by a cellular system using a seven cell reuse pattern. Each cell has a radius of 4 miles and the city has 40 MHz spectrum with a full duplex channel bandwidth of 60KHz. Find:

- a) The number of cells in the service area.
- b) The number of channels per cell.
- c) Total number of subscribers that can be served

11. If a total of 33 MHz of bandwidth is allocated to a particular cellular system which uses two 25 KHz Simplex channels to provide full Duplex voice. Compute the number of channels available per cell if the system uses:

- (i) 4 cell reuse
- (ii) 7 cell reuse