

IIT-Allahabad
IMDM Assignment Questions
Assignment 4: Location and Hand-off Management

1. What do you understand by the term “location management”? Describe the steps of a location manager to identify the location of a mobile unit? Assume the HLR is stored at a central location?
2. Investigate how data flows through a wireless channel. If a data stream is continuously dispatched on the same channel, then the channel can be thought of as a storage media for the data stream. Thus the broadcast server could continuously send all its data on a set of channels and eliminate the disk altogether. Is this storage model acceptable to you? If not, then what problems do you see in this model?
3. How the use of major and minor index improves the data access from a broadcast? Do you think that creating more levels of indexing would further improve data access? Explain your answer and give an example to support your answer.
4. Prove that $N = i^2 + ij + j^2$, where N is the cell cluster size, i is the number of cells to be traversed in i coordinate, j is the number of cells to be traversed in j coordinate from the originating cell. j coordinate is 60' from i coordinate.
5. Clearly explain the difference between a hard and a soft handoff. Explain different ways of processing a handoff.
6. In how many different modes a cell phone may enter? Explain the activity of the cell phone in each of these modes.