Mobile Computing Answer any five out of seven questions

Time: 1 Hours ICE 1005/1 Total Mark: 70

1. [7+7]

- i. What is your idea of a ubiquitous computing scenario for the home? Elaborate on this.
- ii. Draw a table to compare and contrast the various routing algorithm used in WSN.

2. [4+4+6]

- i. Probably you have used a cell phone to call your friend or to play any game. Identify the generation of your cell phone that you have used. Discuss the functionality relevant to that generation of the phone.
- ii. The 4G mobile technology handsets are already available. Give some idea for new features that can be added in 4.5G systems of tomorrow.
- iii. What is handoff? Elaborate with diagram, different steps involve in soft handoff.

3. [7+7]

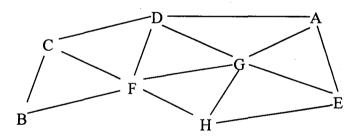
- i. A Bluetooth device can be in two piconets at the same time. Is there any reason why one device cannot be master in both of them at a same time?
- ii. Explain clearly why the wired Ethernet cannot be used for WLANs.

4. [7+7]

- i. Process migration has many advantages and wide application. However, can you suggests some alternatives to process migration?
- ii. Discuss the application of process migration.

5. [6+8]

- i. Differentiate between wireless cellular network and ad-hoc network.
- ii. Consider the network shown below:



Show how you can create a route from source node B to destination node E using DSR algorithm.

6. [4+4+6]

- i. Explain clearly the difference between wireless sensor network (WSN) and other types of ad hoc networks.
- ii. Discuss the area of application of WSN.
- iii. Draw a table to compare and contrast the various routing algorithms used in WSN.

7. [6+8]

- i. Is it possible to use circuit switching in ad hoc networks? Explain your answer.
- ii. Repeat Question no. 5.b for AODV algorithm