IV B.Tech. I Semester Regular Examinations, November -2008
MOBILE COMPUTING
(Common to Computer Science & Engineering,Information Technology and
Electronics & Computer Engineering)

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. With the help of a neat diagram, explain the reference model of wireless and mobile networks.   [16]

2. Assume that there are N stations. Stations transmit without sensing the channel. Under what conditions the performance f this scheme is good. When the performance is poor. How carrier sensing helps to improve the situation. When carried sensing helps little. What is the suggested solution then?   [16]

3. The goal of mobile IP is supporting end system mobility while maintaining scalability, efficiency, and compatibility in all respects with existing applications and internet protocols. Explain.   [16]

4. Explain in detail classical enhancements to TCP for mobility.   [16]

5. Explain in detail the transactional model of database.   [16]

6. (a) The push based broad cast are not suitable for large data size, justify.

   (b) Explain about on demand data scheduling.   [8+8]

7. (a) What is MANET? How is it different from cellular system?

   (b) What are the essential features of MANET?

   (c) What are the applications of MANET?   [6+5+5]

8. Write a notes on the following:

   (a) WDP

   (b) WTLS.   [8+8]

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1. What is electromagnetic spectrum? Which part of the spectrum is used for wireless and mobile communications? Consider all possibilities like building a network, cellular communications, and satellite networks etc.   [16]

2. Suggest a multiple access scheme which give good performance in all situations.
[16]

3. (a) What are the entities that are part of mobile IP? Explain them with an example network.

    (b) What is tunneling in mobile IP?   [8+8]

4. Compare the classical approaches to make the TCP suitable for mobile environment. Give their relative advantages and disadvantages.   [16]

5. (a) Discuss the necessity of cache and briefly discuss about caching invalidation mechanism.

    (b) Explain the Query processing of database.   [8+8]

6. (a) What are the steps involved in retrieving the indexed data frames.

    (b) Explain on-demand data scheduling scheme for variable size of items. [8+8]

7. What is mobile ad-hoc network? Explain in detail about MANETS.   [16]

8. What is WAE? Discuss about its logical model.   [16]

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1. Explain the different mobile phone technologies.   [16]

2. How starvation can be avoided in all multiple access schemes which you have stud-
   ied. Explain in detail.   [16]

3. (a) What is the role of Home agent and Foreign agent in mobile IP?

   (b) What are the two possibilities for location of COA?   [8+8]

4. Explain in detail Indirect TCP.   [16]

5. Explain the issues ensuring of QOS in mobile environment.   [16]

6. What is indexing? Discuss the various types of indexing techniques in detail. [16]

7. What are the advantages of MANETS and explain in detail?   [16]

8. Explain in detail about wireless marked language and its features.   [16]

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Set No.4

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1. Explain in detail about GSM.   [16]

2. Explain how priority based multiple access schemes can be implemented.   [16]

3. With the help of an example diagram, explain how IP packets are transferred from fixed node to mobile node.   [16]

4. Explain in detail Snooping TCP.   [16]

5. Explain the issues in ensuring QOS in mobile environment.   [16]

6. What is balanced push-pull mechanism? In detail explain about IPP.   [16]

7. What are the disadvantages of MANETS and explain in detail?   [16]

8. (a) With a neat diagram explain the WAP architecture.
   (b) Discuss briefly the user scenarios of Bluetooth.   [8+8]

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