

Code No: N0523

**R07**

**Set No. 1**

**IV B.Tech. I Semester Regular Examinations, November, 2012**

**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**

**\*\*\*\*\***

- 1 With the help of neat diagram explain architecture of mobile network.
- 2 Explain how priority based multiple access schemes can be implemented.
- 3 Explain about Dynamic Host Configuration Protocol
- 4 a) Explain about congestion control mechanism in TCP  
b) Explain about Transaction oriented TCP.
- 5 Explain about caching architecture in detail.
- 6 a) The push based broad cast are not suitable for large data size ,Justify  
b) Explain about selective tuning techniques.
- 7 What are the disadvantages of MANETS and explain in detail.
- 8 a) Which of the MAC schemes give hard guarantees related to band width and access delay? Justify.  
b) Explain the link management in Bluetooth.

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**Set No. 2**

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**Time: 3 Hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

**\*\*\*\*\***

- 1 Explain about application of Mobile computing and also brief it limitations.
- 2 Discuss about
  - a) FDMA
  - b) CDMA
- 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.
- 4 Explain in detail about snooping TCP
- 5 Explain in detail about transactional model of data base.
- 6
  - a) Discuss hashing techniques for Indexing
  - b) Discuss Multi attribute Indexing
- 7 What are the various types of routing algorithms? Explain each of them in detail.
- 8
  - a) What is WAP? Discuss about its architecture
  - b) Discuss briefly the user scenarios of Bluetooth.

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**Set No. 3**

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**Time: 3 Hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks  
\*\*\*\*\***

- 1 Explain in detail about GSM
- 2 Suggest a multiple access scheme which gives a good performance in all situations.
- 3 Explain in detail about encapsulation procedure for mobile IP
- 4 Explain about classical enhancement to TCP for mobility.
- 5 Write short notes on
  - a) Wired QoS
  - b) Client-Server Computing
  - c) Handover DoS
- 6 What is the data base issues involved in mobile environment? Discuss them in detail.
- 7 What is Mobile ad-hoc network? Explain in detail about properties of MANETS.
- 8 Discuss the configuration and profile of J2ME in detail.

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**Set No. 4**

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**MOBILE COMPUTING**

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& Computer Engineering)**

**Time: 3 Hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks  
\*\*\*\*\***

- 1 Explain in detail about Radio interface of GSM architecture.
- 2 Assume that there are N stations. Stations transmit without sensing the channel. Under what conditions the performance of this scheme is good. When the performance is poor how carrier sensing helps to improve the situation. When carrier sensing helps little what will be the suggested solution.
- 3 With the help of an example diagram, explain how an IP packets are transferred from fixed node to mobile node.
- 4
  - a) In an Indirect TCP access point is seen as the mobile host for the fixed host and as fixed host for mobile host. Explain.
  - b) How does handover take place in Indirect TCP
- 5
  - a) Discuss the need cache and briefly discuss about caching invalidation mechanism.
  - b) Explain the Query processing of database
- 6
  - a) Explain the hashing based scheme in detail.
  - b) With neat diagram explain the architecture of adaptive hybrid broadcast mechanism.
- 7
  - a) What is MANET? How is it different from cellular system?
  - b) What are all the essential features of MANET?
- 8 Explain about Wireless Application Protocol.