Code No: D5808

R09

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations, March/April 2011
WIRELESS NETWORKS AND MOBILE COMPUTING
(COMPUTER SCIENCE AND ENGINEERING)

Time: 3hours   **Max. Marks: 60**

Answer any five questions
All questions carry equal marks
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1. a)   Describe the layers in Bluetooth protocol.
   b)   What are the services provided in a GSM system? Explain how a mobile station connects
        to and talks with another mobile station.   [6+6]

2.   Describe the function of each header in the IP protocol. What do you mean by tunneling,
        encapsulation and decapsulation? How does a tunnel differ from a router? [12]

3.   Describe indirect TCP. Explain modifications of indirect TCP as the selective repeat
        protocol and mobile end transport protocol.   [12]

4.   Describe digital audio broadcasting. Explain the DAB technology.   [12]

5.   Describe the architecture of J2ME.   [12]

6. a)   Why are XML based languages used in mobile applications. Give examples of XML
        based UIS.
   b)   Explain the standards of IEEE 802.11.   [6+6]

7.   Describe the security problems in mobile and wireless computing systems and suggest
        their solutions.   [12]

8. a)   Compare IEEE 802.11, HiperLAN2, and Bluetooth with regard to their adhoc
        capabilities. Where is the focus of these technologies?
   b)   Why has a scripting language been added to WML? How can this language help saving
        bandwidth and reducing delay?   [6+6]

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