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Total Number of Pages: 02

M.TECH
CSPE204

2nd Semester Regular/Back Examination – 2015-16

MOBILE COMPUTING

Q.CODE: W751

Time: 3 Hours

Max marks: 70

**Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.**

- Q1 Answer the following questions: (2 x 10)
- a) What is meant by reverse tunneling?
 - b) Differentiate between hidden terminal and exposed terminals with example.
 - c) Differentiate between handover and handoff.
 - d) What is the purpose of sniff state?
 - e) What is known as mobility anchor point?
 - f) What is Delivery Traffic Indication Map?
 - g) Give two advantages and two disadvantages of cellular systems with small cells.
 - h) Why cellular IP cannot be used in place of mobile IP?
 - i) What is the use of Phase Lock Loop (PLL)??
 - j) Differentiate between Pico net and Scatter net.
- Q2 a) Explain how routing is established in Destination Sequence Distance Vector. (5)
- b) Explain Snooping TCP and Indirect TCP. (5)
- Q3 a) Explain tunneling and encapsulation in mobile IP. (5)
- b) What is mobile agent? What are the different requirements for mobile agent system? (5)
- Q4 a) Describe the main steps of inter-BS and inter-MSC handoff procedures. (5)
- b) What is WAP? Draw the WAP architecture. Discuss its advantages and disadvantages
- Q5 a) Explain the architecture of an infrastructure based IEEE802.11 wireless LAN with suitable example. (5)
- b) Illustrate the difference between frequency hopping spread spectrum and direct sequence spread spectrum. (5)

- Q6 a) Explain the GSM architecture and discuss the mobility management mechanism. (5)
b) Compare and contrast TDMA, FDMA and CDMA techniques. (5)
- Q7 a) Why do MAC scheme in wired network fail in wireless networks and how does the multiple access with collision avoidance (MACA) scheme work. (6)
b) Explain the steps involved in the process of registration with a foreign agent with necessary packet format. (4)
- Q8 Write notes on (any two) (5 x 2)
a) Energy Efficiency in Mobile Networks
b) Cellular systems
c) Location management
d) Link manager protocol