

CE1.5-R4: MOBILE COMPUTING

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.
 - a) Explain different types of mobile computing networks.
 - b) Explain VLR.
 - c) Explain the major challenges of wireless communications.
 - d) Explain difference between reactive and proactive routing protocol.
 - e) Explain encapsulation and decapsulation.
 - f) Explain Explicit Notification mechanism in mobile transport layer.
 - g) What are the numbers that are required to locate an MS and to address the MS?
(7x4)

2.
 - a) Explain the cellular system. Describe the advantages and disadvantages of cellular system.
 - b) Explain the functional architecture of GSM architecture along with neat diagram.
(9+9)

3.
 - a) Explain CSMA protocol and its types.
 - b) Explain how multiple access with collision avoidance protocol avoid hidden terminal and exposed terminal problems?
(9+9)

4.
 - a) Explain the various entities of mobile IP.
 - b) Explain mobile binding mechanism with diagram.
(9+9)

5.
 - a) Explain the Fast Retransmission /recovery mechanism. What are the advantages and disadvantages of the Fast Retransmissions / Recovery Mechanisms?
 - b) Compare and contrast the TCP-Snooping, Indirect TCP and Mobile TCP.
(9+9)

6.
 - a) What is meant by cache invalidation? Explain the MESI protocol for cache invalidation mechanism.
 - b) Describe the Index based selective tuning? State the advantages of Index based selective tuning.
(9+9)

7. Write short notes on the following:
 - a) WAP 2.0 Architecture
 - b) AODV Routing Algorithm.
 - c) Symbian OS.
(6+6+6)