

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) Why are the operating system and middleware needed for a mobile system?
 - b) Describe the localization process of GSM.
 - c) What are the advantages and disadvantages of snooping TCP?
 - d) What is MESI protocol? Explain.
 - e) What is a Protocol Conversion Gateway?
 - f) What are the features of a WML script?
 - g) List the advantages of Wireless LANs.

(7x4)

2.
 - a) Describe the functions, services and architecture of a GPRS system.
 - b) Explain the basic access mechanism used by the MAC layer in wireless LANs.

(10+8)

3.
 - a) How does a mobile node finds and connects to a new foreign agent once it has moved?
 - b) How does mobile IP works?

(10+8)

4.
 - a) Explain Session Initiation Protocol (SIP).
 - b) Compare CDMA and GSM.
 - c) Describe Short Messaging Service (SMS).

(8+5+5)

5.
 - a) How does mobile TCP works? What are the advantages and disadvantages of mobile TCP?
 - b) What are the various components of Information Security? Describe the various categories of attacks that an information system can suffer.

(8+10)

6.
 - a) Describe various types of security models.
 - b) Explain in detail the Palm OS architecture.

(8+10)

7. Describe the following:
 - a) Pull based data dissemination
 - b) Conflict resolution strategies in mobile system
 - c) Hashing algorithms

(3x6)