

## MOBILE COMPUTING

### IMPORTANT QUESTIONS

#### Two Marks

1. Define the term Wireless.
2. What is meant by data synchronization? List their types.
3. What is the need for security in mobile computing? Give the classification of cryptographic algorithms with suitable examples.
4. Give the differences between 1G, 2G, 2.5G and 3G mobile communications.
5. List the types of integrated services for voice & data in GSM.
6. Define the term Mobile Computing.
7. List the various data dissemination mechanisms used in Wireless Communication.
8. Give the limitations of mobile computing.
9. What are the advantages and disadvantages of using a wireless transmission as compared to a fibre or wire transmission?
10. What is meant by data synchronization? List their types.
11. Define ALOHA. Give their types.
12. What is meant by FSSI?
13. List the features of CDMA based systems.
14. Differentiate CSMA and CSMA/CA.
15. Define the terms (i) Home Agent  
(ii) Foreign Agent  
(iii) Care-of-address
16. What are the challenges of wireless communication in medium access control?
17. Define CDMA.

18. Define Mobile IP.
19. Give the types of codes used in CDMA.
20. Define the terms, (i) Home Network (ii) Foreign Network (iii) IRDP
21. Define the terms tunneling and encapsulation.
22. What are the steps involved in agent discovery process?
23. Define T-TCP.
24. Give the features of Windows CE.
25. What are the different types of mobile middleware?
26. Define DHCP.
27. Compare Palm OS with Symbian OS.
28. List the components used in telescript agent architecture.
29. Give the strategies to measure adaptation.
30. What are the components used in Sensor node? Sketch it.

### **Big Questions**

1. Sketch and explain the functional architecture of a Mobile Computing system.
2. What are the different types of Mobile system Networks? Explain in detail.
3. Explain in detail about GPRS system and its architecture.
4. Explain in detail about the various services provided by the GSM. With a neat sketch, explain how various services get integrated.
5. Explain in detail about the various multiplexing techniques used in Wireless Communication.
6. Describe the various cryptographic algorithms. With a neat diagram explain the authentication process of GSM.
7. Explain in detail about GPRS system and its architecture.
8. Explain in detail about GSM system and its architecture.

9. Explain the protocol used for finding a co-located care-of address. When is the DHCP used? Explain the DHCP protocol. How does a DHCP server bind a mobile node with an IP address?
10. Explain in detail about Indirect, Snooping and Mobile TCP.
11. Describe the highlights of Symbian OS. Explain Symbian OS architecture. Compare Palm OS with Windows CE.
12. Explain in detail about the properties, features and applications of Adhoc and Sensor networks.
13. List and explain about the various cases encountered in Handover Management.
14. With a neat sketch, explain in detail about the Route Optimization techniques used in Mobile IP.
15. Explain in detail about the properties, features and applications of Adhoc and Sensor networks.
16. Define middleware. Explain in detail about the various types of mobile middleware's used in mobile communication.
17. With a neat sketch, explain Hidden, Exposed, Near and Far terminal problems in wireless networks. Give the solution for the above problem in Medium Access using MACA.
18. Explain in detail about how location management is handled in cellular networks.
19. Explain in detail about the various spread spectrum techniques used in CDMA systems. Draw their architectures.
20. Explain in detail about the various coding methods used in CDMA.
21. Explain in detail about the various spread spectrum techniques used in CDMA systems. Draw their architectures for transceiver and receiver.
22. Explain in detail about point-to-point, multicast and broadcast communication on a network.
23. Define ICMP. Explain the differences between connection-less and connection-oriented protocols. Give examples.
24. Describe the Mobile IP protocol. Explain with a diagram, how a correspondent mobile node on a visit sends & receive IP packets through Mobile IP networks employing Home and Foreign Agents.
25. Explain in details about Adhoc and Sensor Networks.

26. Explain in detail about energy efficient communication
27. Explain in detail about middleware's and their types.
28. Explain in detail about Service discovery framework