

III B. Tech II Semester Regular Examinations, July-2023**MOBILECOMPUTING**

(Com. To CSE & IT)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) What is the multiplexing? Differentiate various types of multiplexing techniques. [7M]
b) Explain about Direct sequence spread spectrum. [7M]
(OR)
2. a) Discuss about types of hand-off and their characteristics. [7M]
b) Explain Frequencies for radio transmission in detail. [7M]

UNIT-II

3. a) Describe classical aloha and slotted aloha. [7M]
b) Explain system architecture of DECT in detail. [7M]
(OR)
4. a) What are protocols of GSM? Explain. [7M]
b) Discuss about spread aloha multiple access. [7M]

UNIT-III

5. a) Explain about protocol architecture of IEEE 802.11 [7M]
b) Describe Link manager protocol of Bluetooth. [7M]
(OR)
6. a) Discuss about reference model and configurations of HiperLAN2. [7M]
b) Explain Infra red vs radio transmission in detail. [7M]

UNIT-IV

7. a) Describe dynamic source routing in mobile ad-hoc networks. [7M]
b) Discuss about traditional TCP and transaction oriented TCP [7M]
(OR)
8. a) Explain about IP micro-mobility support. [7M]
b) Distinguish between indirect TCP and snooping TCP, mobile TCP. [7M]

UNIT-V

9. Explain the following:
a) Wireless Markup language and WML scripts. [7M]
b) Wireless telephony application. [7M]
(OR)
10. Explain the following:
a) Wireless transport layer security. [7M]
b) Wireless application environment. [7M]



III B. Tech II Semester Regular Examinations, July -2023**MOBILECOMPUTING**

(Com. To CSE & IT)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Explain about amplitude shift keying and multi-carrier modulation. [7M]
b) Describe simplified reference model of communication systems. [7M]
(OR)
2. a) Give example systems and their frequency allocations. [7M]
b) Define multi-path propagation. Explain in detail. [7M]

UNIT-II

3. a) Discuss about motivation for a specialized MAC in detail. [7M]
b) Describe UMTS radio interface and handover mechanism. [7M]
(OR)
4. a) Explain about new data services in GSM. [7M]
b) Discuss about reservation TDMA and polling. [7M]

UNIT-III

5. a) Explain about infrastructure and ad-hoc networks in detail. [7M]
b) Describe basic DFWMAC-DCF using CSMA/CA. [7M]
(OR)
6. a) Discuss about the basic structure of an IEEE 802.11 MAC data frame. [7M]
b) Describe power management in MAC. [7M]

UNIT-IV

7. a) Explain about mobile TCP in detail. [7M]
b) Define mobile IP. Explain about optimizations in mobile IP. [7M]
(OR)
8. a) What is TCP? Explain about indirect TCP. [7M]
b) Give an overview of ad-hoc routing protocols. [7M]

UNIT-V

9. Explain the following:
a) Wireless transaction protocol. [7M]
b) Architecture of WAP. [7M]
(OR)
10. Explain the following:
a) Wireless data gram protocol-operational phases. [7M]
b) Wireless session protocol. [7M]

III B. Tech II Semester Regular Examinations, July -2023**MOBILECOMPUTING**

(Com. To CSE & IT)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Write about various strategies followed for channel allocation and assignment in detail. [7M]
b) Define frequency shift keying. Explain about advanced frequency shift keying. [7M]
(OR)
2. a) Write a note on working of cellular systems and techniques management. [7M]
b) Discuss about frequency hopping spread spectrum with a neat diagram. [7M]

UNIT-II

3. a) How is synchronization achieved in GSM? Who is responsible for synchronization and why is it so important? [7M]
b) Explain about UMTS radio interface in detail. [7M]
(OR)
4. a) Describe localization and calling in GSM. [7M]
b) Explain the comparison of S/T/F/CDMA. [7M]

UNIT-III

5. a) What are advantages and disadvantages of WLANs? Explain. [7M]
b) Describe basic DFWMAC-DCF using CSMA/CA in detail. [7M]
(OR)
6. a) Explain about baseband layer in Bluetooth. [7M]
b) Describe data link control layer in HyperLAN2. [7M]

UNIT-IV

7. a) Discuss about agent discovery in Mobile IP. [7M]
b) Describe transaction-oriented TCP in detail. [7M]
(OR)
8. a) Explain in detail about DHCP. [7M]
b) Discuss about snooping TCP and mobile TCP. [7M]

UNIT-V

9. Explain the following:
a) Wireless transaction protocol [7M]
b) Wireless markup language [7M]
(OR)
10. Explain the following:
a) Wireless session protocol [10M]
b) Wireless datagram protocol [7M]

III B. Tech II Semester Regular Examinations, July -2023**MOBILECOMPUTING**

(Com. To CSE & IT)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Explain about Direct sequence spread spectrum. [7M]
b) Describe various applications of wireless networks. [7M]
(OR)
2. a) Discuss about signals and antennas and frequencies. [7M]
b) Define phase shift keying. Explain about advanced phase shift keying. [7M]

UNIT-II

3. a) Draw and explain protocol architecture of DECT. [7M]
b) Describe multiple access with collision avoidance in TDMA. [7M]
(OR)
4. a) Distinguish between SDMA and FDMA. [7M]
b) Explain mechanism of SMS transfer and international roaming for GSM. [7M]

UNIT-III

5. a) Discuss about DFWMAC-DCF with RTS/CTS extension. [7M]
b) Explain in detail about IEEE 802.11b. [7M]
(OR)
6. a) What are WATM services? Explain WATM reference model. [7M]
b) Explain about link manager protocol in detail. [7M]

UNIT-IV

7. a) Describe tunneling and encapsulation in Mobile IP. [7M]
b) Write the working of mobile IP and the way it handles fast retransmit hast recovery transactions. [7M]
(OR)
8. a) Explain about IP micro-mobility support in detail. [7M]
b) What TCP? Explain in detail about indirect TCP. [7M]

UNIT-V

9. Explain the following:
a) Wireless transport layer security [7M]
b) WMLScript [7M]
(OR)
10. Explain the following:
a) Wireless telephony application [7M]
b) Architecture of WAP [7M]

