SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR
Siddharth Nagar, Narayanavanam Road – 517583

QUESTION BANK (DESCRIPTIVE)

Subject with Code : Advanced Wireless and Mobile Networks(18CS5015)

Course & Branch: M.Tech - CSE **Year & Sem:** I M.Tech & I Sem

Regulation: R18

Essay Answer (10 mark) Questions

UNIT –I

1. a) Differentiate Wireless and Wired Networks 5 M
   b) Explain the functions of Physical layer for Wireless Networks 5 M
2. a) What is FDMA? Explain different features of FDMA? 5 M
   b) Discuss about Spread Spectrum 5 M
3. Explain detail about IEEE 802.11 10 M
4 a) What is frequency reuse? Explain 5M
   b) Describe about Radio Propagation and Modeling 5M
5. Explain in detail about Multiple Access Technologies 10M
6. Describe about Spread spectrum technologies 10M
7. a) What is CDMA? Explain.5M
   b) Discuss about Electromagnetic spectrum 5M
8 a) Differentiate Infrastructure and Adhoc Wireless Networks. 5M
   b) Discuss about IEEE 802.11 Physical Layer 5M
9. Explain in detail about IEEE 802.11 Architecture and Protocols 10M
10. Explain about WLAN in detail. 10M

UNIT –II

1. Discuss in Detail about Cellular Technologies and Development 10M
2. a) Compare 2G and 3G Mobile Technologies. 5 M

   b) Describe about Mobile IP 5M
3. Explain about Mobile IPv4 with neat sketch 10M
4 a) Compare Mobile IPv4 and Mobile IPv6 5M

. b) Discuss about Mobile IP with neat sketch. 5M

5. a) Discuss about Handoff in Wireless Networks 5M

   b) Compare 1G, 2G and 2.5G mobile Technologies. 5M
6. What is the need of Mobile IP? Explain with neat sketch. 10M
7. a) Discuss about TCP over Wireless Networks 5M

   b) Draw and explain about Cellular Network architecture 5M

8 a) How to improve coverage and capacity in cellular systems. 5M

b) What is Mobile IPv6 5M

9. Explain in detail about Handoff in wireless networks 10M
10. a) Compare TCP and UDP in Wireless Networks 5M

    b) Distinguish between Mobile IPv4 and Mobile IPv6 5M
11. Explain about 1G, 2G and 2.5G mobile technologies 10M

UNIT –III

1. Discuss WiMAX. What are the main differences between IEEE 802.11b (WiFi) and WiMAX? 10M

2. a) List any four applications of WSN.5M

b) Draw the architecture of a sensor node. 5M

3. Explain WIMAX frame structure and various MAC fields such as DLMAP, DCD, ULMAP and UCD and their significance. 10M

4. a) Draw and explain the architecture of Sensor Network 5M

b) Discuss about WRAN. 5M

5. a) Why was the WiMAX system introduced? 5M

b) Discuss about IEEE 802.21 Media Independent Handover 5M

6. What is the need of Wireless Sensor Network? Explain the Power Management in WSN. 10M

7. a) What is the difference between TDD and FDD? 5M

b) What is the difference between WiMAX system and LTE system? 5M

8. Write in brief about Physical layer, MAC Layer and Network Layers in Wireless Sensor Networks 10M

9. Explain in detail about Advantages and disadvantages of Wireless Networks. 10M

10. Discuss about Wireless LAN Standards. 10M

UNIT –IV

1. a) Describe PAN applications 5M

b) Explain basics of zigbee technology 5M

2. a) How to crack Wi-Fi network, if you are using WEP (Wired Equivalent Privacy) Password with backtrack? 5M

b) How do you secure a wireless network? 5M

3. Discuss the connection management followed in Bluetooth technology. And explain the frame format in Bluetooth technology 10M

4. What are the Security issues in Wireless Networks? Explain 10M

5. a) Explain Bluetooth protocol stack with neat diagram 5M

b) Explain the different components which form Zigbee network or system. 5M

6. What is DOS attack? Explain about Wi-Fi security. 10M

7. a) Explain block diagram of Zigbee physical layer modules. 5M

b) Security in wireless Networks Vulnerabilities 5M

8. a) How can you configure Wi-Fi Network and What are the Wi-Fi Protocols. 5M

b) How do you secure a Wireless Network 5M

9. Explain in detail about WPAN. 10M

10. Compare security issues in Wireless networks with wired networks. 10M

UNIT –V

1. Compare various standards of IEEE 802.11x. 10M

2. Explain IEEE 802.11i authentication 10 M

3. a) List and briefly define 802.11 services. 5M

b) Discuss about Security in Wireless Networks and standard. 5M

4. a) What is IEEE 802.11x? Explain. 5M

b) Write about VAN. 5M

5. a) What are the security areas are addressed by 802.11i? Explan.5M

b) Draw and explain the architecture of IEEE 802.11i 5 M

6. Explain in detail about VAN. 10M

7. a) List and briefly define 802.11i services. 5M

b) Describe IEEE 802.11i Authentication 5M

8. Explain in detail about Vehicular Adhoc Network. 10 M

9. What is the need of VAN? Discuss in detail. 10m

10. Explain in detail about Protocols in IEEE 802.11i. 10M

Prepared by:
Dr. P. Ramesh babu, CSE Department, SIETK